MULTI-CD CONTROL
EQUALIZER CD
FM/AM TUNER DECK AMPLIFIER

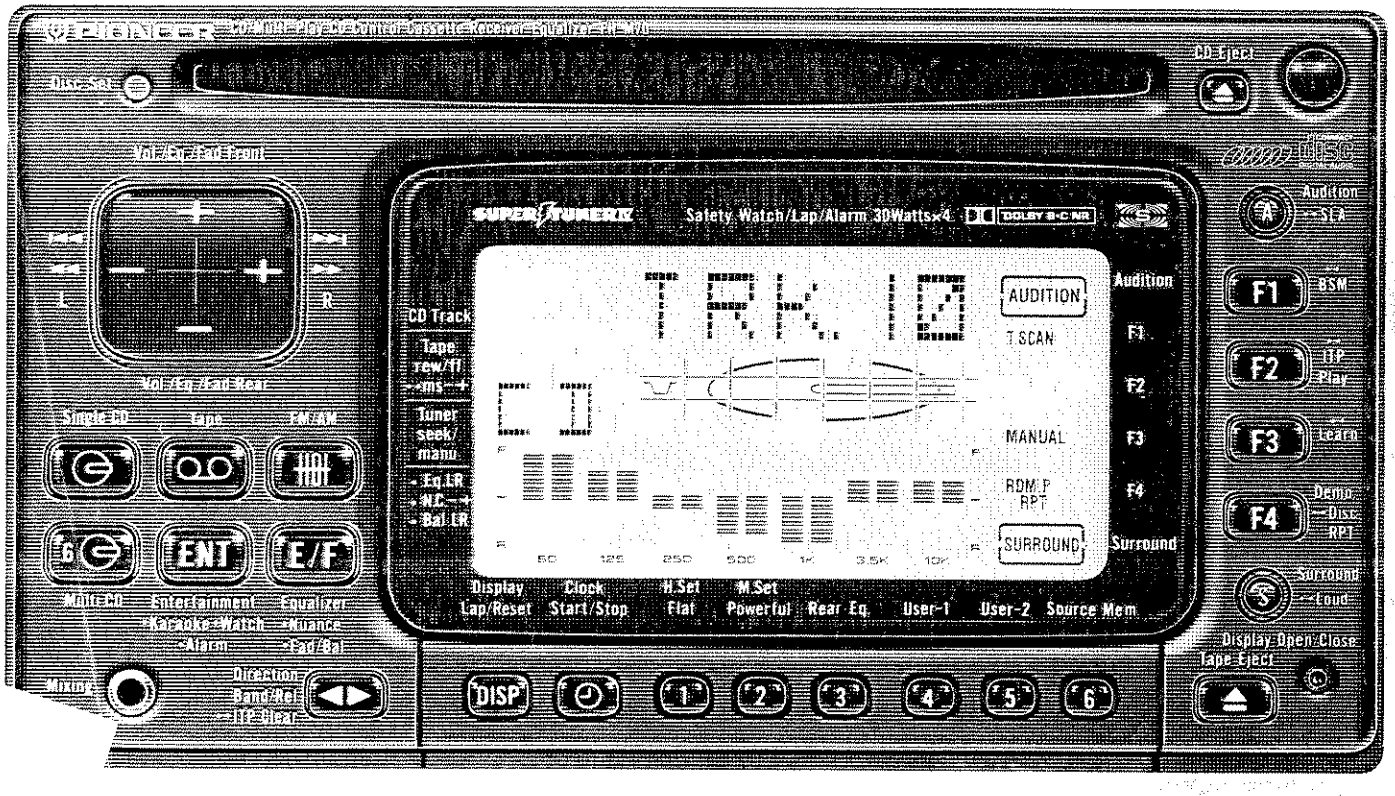
OWNER'S MANUAL

SUPER TUNER IV

Thank you for purchasing this PIONEER product.
Before attempting operation, be sure to read this manual.

PIONEER
The Art of Entertainment

FH-M70



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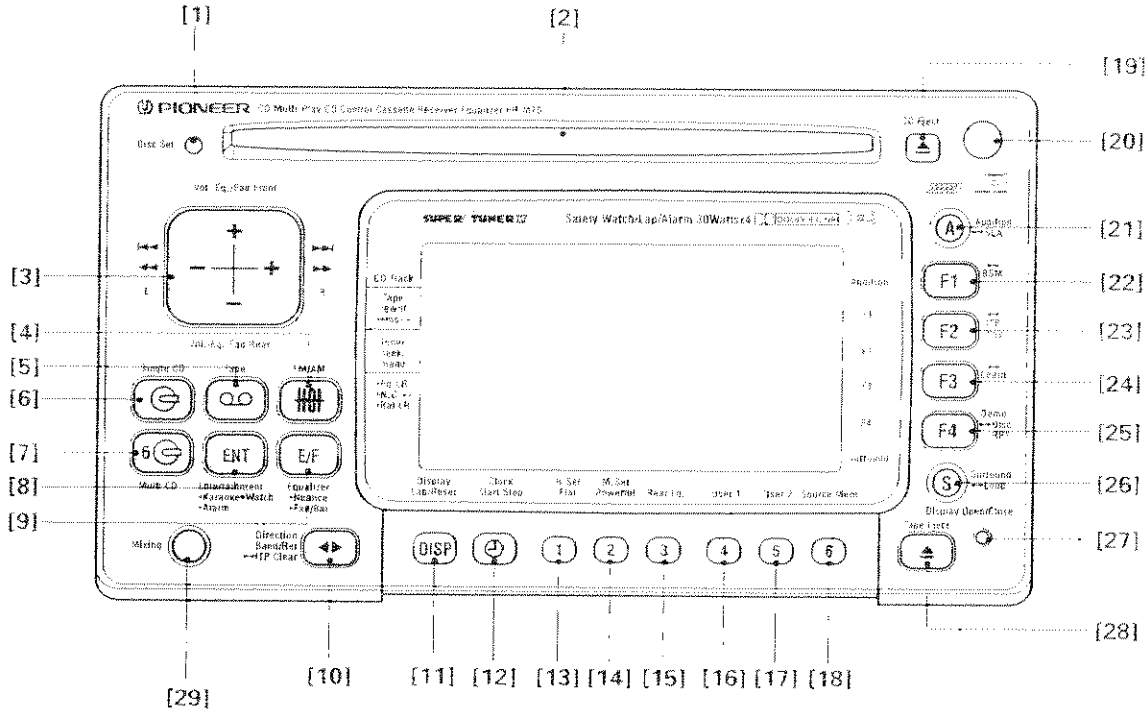
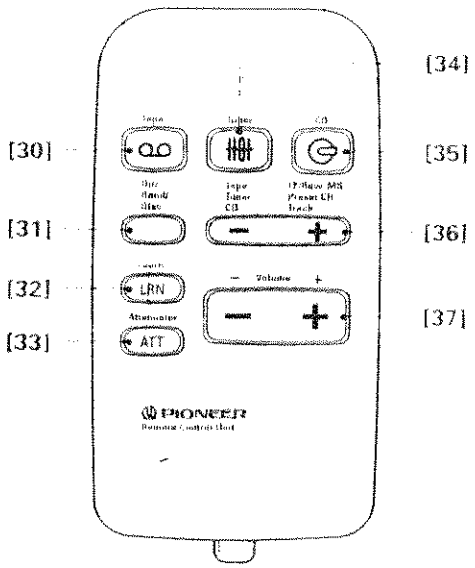
Appearance

Main Unit



Remote Controller



Before Using Your FH-M70

CAUTION: USE OF CONTROL OR ADJUSTMENT OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

CAUTION: THE USE OF OPTICAL INSTRUMENTS WITH THIS PRODUCT WILL INCREASE EYE HAZARD.

⚠ CAUTION

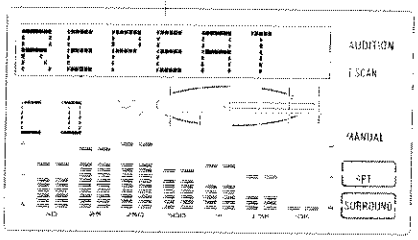
Scroll Display:

- *This unit incorporates a scroll display. When you press a button to carry out an operation, a message indicating the details of that operation will scroll from right to left across the message display component. (Example: When you press the button [25] and place the unit into music repeat mode while playing the CD, the words "REPEAT PLAY" will scroll from right to left across the message display component.)*
  Never read the scroll display while driving as doing so will hinder safe driving.

When Using the Unit as a Karaoke System:

- *When combined with the separately available Mic controller (e.g., CD-MC2), this unit can be used as a karaoke system. Although the driver is able to use the unit, never operate while driving, as doing so will hinder safe driving.*
- *Always keep the volume inside the car at a level that allows you to hear outside sounds.*

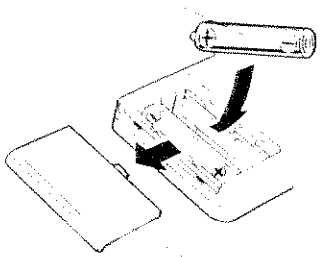
Message display component



Prepare the Remote Controller First

Loading Batteries

Supplied dry cells
(UM-4, AAA, R03)



Remote controller rear cover

Precautions When Loading Batteries:

Note the following precautions when loading batteries into the remote controller unit to avoid damage due to battery fluid leakage.

- *Always check carefully that you are loading batteries with their ⊕ and ⊖ poles facing in the proper directions.*
- *Never mix old and new batteries. Always replace batteries with two new ones.*
- *Some batteries may appear to be identical but have different voltage ratings. Never mix battery types.*
- *Some batteries can be recharged and some cannot. Be sure to carefully read the label for the batteries you use.*
- *To avoid damage to the remote controller caused by battery leakage, remove the batteries from the remote controller if you do not plan to use it for more than one month. If you find that fluid has leaked, thoroughly wipe out the battery compartment and load a set of new batteries.*

Please Read the Following Before Using the FH-M70

Using the Multi-Play CD Function

- This function requires connection to the separately available multi play CD player (e.g., CDX-M30).
- See the owner's manual of the multi play CD player for instructions on the loading and removal of the CD magazine.

The Magazine Type Multi Play CD players with "□□□" mark and the Magazine with the same mark are compatible for 5-inch (12 cm) discs.

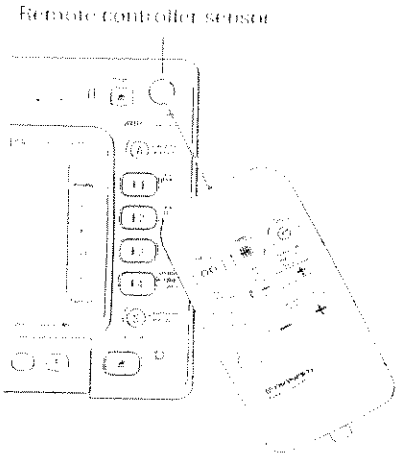
When Using the Unit as a Karaoke System

- The separately available Mic controller (e.g., CD-MC2) is required to use the unit as a karaoke system.

Using the Remote Controller

Precautions:

- *Keep the remote controller unit in an area not exposed to long periods of direct sunlight.*
- *The remote controller unit may not operate properly if the transmitter of the remote controller unit is pointed towards the floor or the seat of the vehicle.*
- *Since the transmitter employs an infrared system, it may not operate properly while the car stereo is exposed to direct sunlight. In such a case, block the sunlight from the sensor and then perform the desired operation.*
- *If the remote controller fails to operate unless it is brought close to the unit, it may indicate that battery power is low. Replace the batteries in the remote controller.*



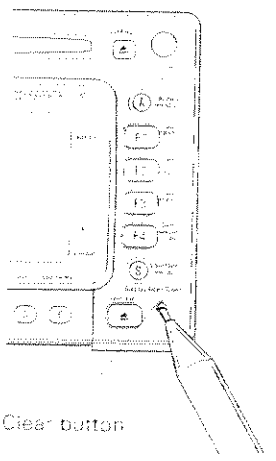
In the Event of Abnormal Operations

Please Read the Troubleshooting Section of This Manual

When you think that an abnormality has occurred, be sure to first read the section on "Troubleshooting" on page 57. Then, check the operation again.

Press the Clear Button

If your unit exhibits abnormal symptoms such as the failure of the unit to power on, the lack of operation even when buttons are pushed, or abnormal display indications, electrostatic noise may be adversely affecting the operation of the built-in microcomputer. Press the clear button with a thin pointed object, such as a pencil tip, when these symptoms appear, as well as after the completion of wiring. Since pressing the clear button erases all control settings, you will have to make the respective settings again afterwards.



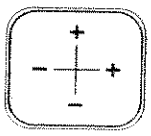
Precautions

- *To assure proper operation of the unit, keep the vehicle interior temperature within a normal range using the vehicle's air conditioner or heater.*
- *If the car's battery is disconnected for any reason, the preset memory will be erased and must be reprogrammed after reconnection of the battery.*

Parts Identification

• For details, refer to the page number indicated in [ ].

Main Unit

Button	Common Parts	In Entertainment Function	In Equalizer/Fader-Balance
[1] Disc Set ○			
[2]			
[3] Upper-Lower / Left-Right 	Volume control [12] Source level adjuster [13]		Level up/down [26] Fader [28]
			Frequency switches [26] Nuance control equalizer [25] Balance [28]
[4]	Source (Tuner) [29]		
[5]	Source (Tape deck) [36]		
[6]	Source (Built-in CD player) [42]		
[7]	Source (Multi-play CD player) [42]		
[8] ENT	Entertainment [18]	Karaoke [18] Safety watch [20] Alarm [21]	
[9] E/F	Equalizer/fader-balance [22]		Graphic equalizer [24] Nuance control equalizer [24] Fader-balance [28]
[10] ◀▶			
[11] DISP	Display switch [15]	Safety watch: lap time/reset [20] Alarm: reset/alarm sound stop [21]	
[12]	Time display [14]	Safety watch: start/stop [20] Alarm: start/stop/alarm sound stop [21]	
[13] 1	Hour adjustment [14]	Alarm: hour set [21]	Flat curve [23]
[14] 2	Minute adjustment [14]	Alarm: minute set [21]	Powerful curve [23]
[15] 3			Rear speaker equalizing curve [23]
[16] 4			User's curve 1 [27]
[17] 5			User's curve 2 [27]
[18] 6			Source memory [27]

• The separately available Mic controller is required to use this unit as a karaoke system.

* For details, refer to the page number indicated in [ ].

Button		Source		
		Tuner	Tape Deck	Built-in CD Player/ Multi-Play CD Player
[1]	Rec/Rel			Disc set indicator [41]
[2]				Disc insertion slot [41]
[3] Upper-Lower / Left-Right	+ − + −	Tuning [30]	Fast forward/rewind/manual search [37]	Track number search [44] Fast forward/reverse [45] * Step number search [48]
[4]		Tuner ON/OFF [29]		
[5]			Tape ON/OFF [36]	
[6]				Built-in CD player ON/OFF [42]
[7]				* Multi play CD player ON/OFF [42]
[8]	ENT			
[9]	E/F			
[10]	◄►	Band selector [29]	Direction [36]	* Program erase [49]
[11]	DISP			
[12]	⏻			
[13]	1	Preset buttons [31]		
[14]	2			
[15]	3			
[16]	4			* Disc number search [43]
[17]	5			
[18]	6			

* Exclusive multi-play CD player function
* The multi-play CD playback function requires connection to the separately available multi-play CD player.

• For details, refer to the page number indicated in [ ].

Button		Common Parts	In Entertainment Function	In Equalizer/Fader-Balance
[19]	CD Eject ⏏			
[20]	◯	Remote controller sensor [5]		
[21]	(A)	Audition [16] Source level adjuster mode [13]		
[22]	F1			
[23]	F2			
[24]	F3	Learning mode [17]		
[25]	F4	Demonstration mode [16]		
[26]	(S)	Surround [17] Loudness [12]		
[27]	◎	Clear button [5]		
[28]	Tape Eject ⏏			
[29]	Mixing ◯		Mike mixing terminal [19, 53]	

• The separately available Mic controller is required to use this unit as a karaoke system.

• For details, refer to the page number indicated in [ ].

Button		Source		
		Tuner	Tape Deck	Built-in CD Player/ Multi-Play CD Player
[19]	CD eject			CD eject [42]
[20]				
[21]	A			
[22]	F1	Preset scan tuning [33] * Best Stations Memory (BSM) [32]	Dolby B and C NR [38]	Highlight scan [46]
[23]	F2	Local mode [30]	Blank skip [38]	* Instant Track Program (ITP) memory [47] * Program play [48]
[24]	F3	Seek-manual tuning selector [30]	Radio/CD intercept [38]	Fast forward/reverse mode [44]
[25]	F4	FM mono [31]	Repeat play [39]	Music repeat/random play [45] * Disc repeat [45]
[26]	S			
[27]				
[28]	Tape Eject		Display open/close [34] Tape eject/reload [36]	
[29]	Muting			

* Exclusive multi-play CD player function

• The multi-play CD playback function requires connection to the separately available multi-play CD player.

• For details, refer to the page number indicated in [ ].

Remote Controller

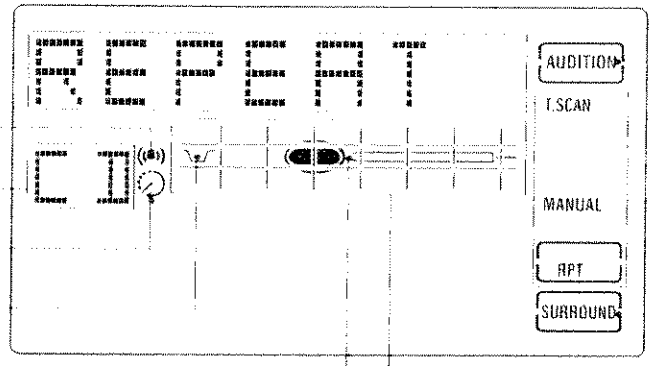
Button		Common Parts	Source		
			Tuner	Tape Deck	Built-in CD Player/ Multi-Play CD Player
[30]		Source (Tape deck) [36]		Tape ON/OFF [36]	
[31]	Dir/ Band/ Disc		Band selector [29]	Direction [36]	* Disc number search [43]
[32]	LRN	Learning button [17]			
[33]	ATT	Attenuator [12]			
[34]		Source (Tuner) [29]	Tuner ON/OFF [29]		
[35]		Source (Built-in CD player /multi-play CD player) [42]			Built-in CD player/multi-play CD player ON/OFF [42]
[36]	Tape Tuner CD / FF/Rew.,MS Preset CH Track		Preset tuning [33]	Fast forward, rewind/ music search [37]	Track number search [44] * Step number search [48]
[37]	Volume	Volume control [12] Source level adjuster [13]			

* Exclusive multi-play CD player function

• The multi-play CD playback function requires connection to the separately available multi-play CD player.

Display

Common Parts/in Entertainment Function



Message display component (Scroll display)

Alarm [21]

Source

Safety watch [20]

Loudness [12]

Audition [16]

Function indicator

Surround [17]

Operation indicator

Karaoke [18]

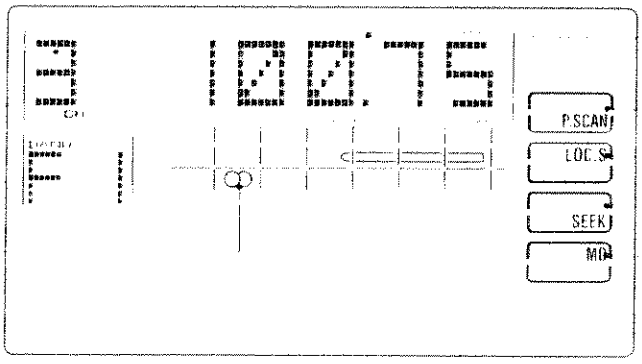
Note:

• *Never read the scroll display while driving as doing so will hinder safe driving.*

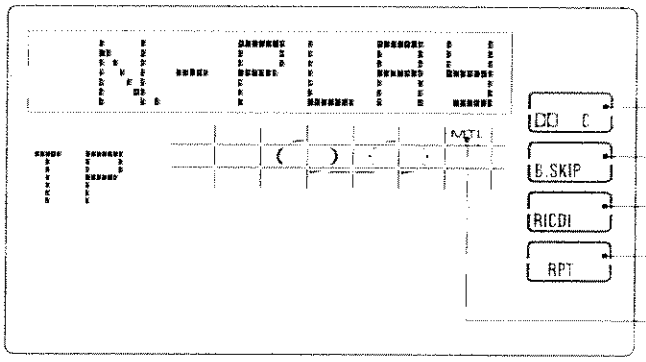
• The separately available Mic controller is required to use this unit as a karaoke system.

• For details, refer to the page number indicated in [ ].

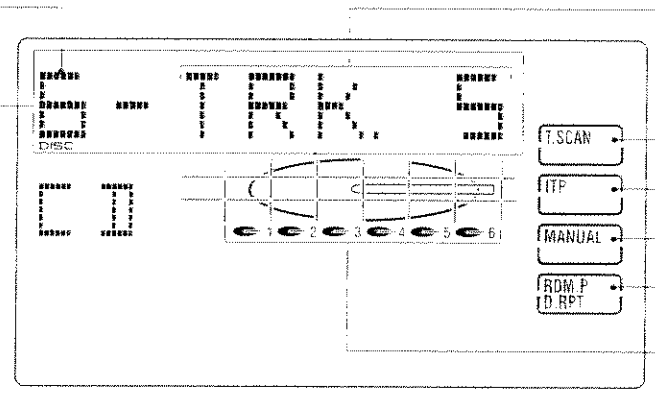
Tuner



Tape Deck



Built-in CD Player/Multi-Play CD Player



* Exclusive multi-play CD player function

• The multi-play CD playback function requires connection to the separately available multi-play CD player.

Adjusting the Volume

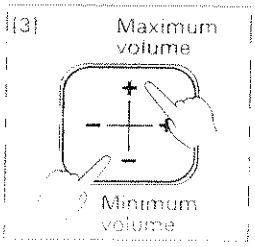
- For details on use of the tuner, see "Using the Tuner" on page 29.
- For details on tape listening, see "Using the Tape Deck" on page 34.
- For details on CD listening, see "Playing Compact Discs" on page 40.

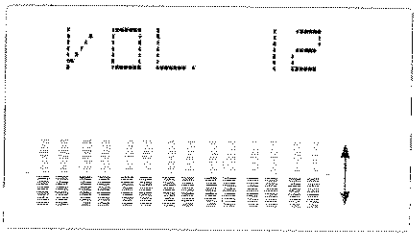
Volume Control

Main unit operation:
Adjust the button [3] vertically.

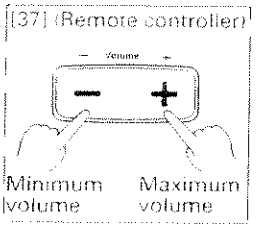
Remote control operation:
Adjust the button [37].

- When you're adjusting the volume, the previous display will return 8 seconds after releasing your finger from the button.





Max. 30
Min. 0

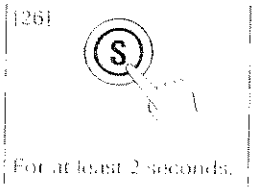


Note:
- *Always keep the volume inside the car at a level that allows you to hear outside sounds.*
- *Avoid high-volume listening for long periods while the car engine is OFF or idling since this may exhaust the battery.*

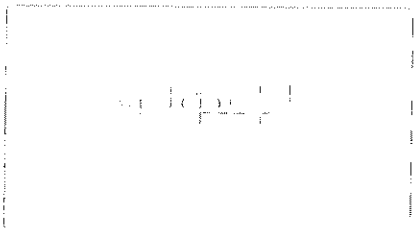
Using Loudness

The loudness function provides additional power to the low and high sound frequencies during low-volume listening.

Hold down the button [26] for at least 2 seconds.
(Press more than 2 seconds again to release.)
- Holding down the button for less than 2 seconds changes the unit to surround ON/OFF.
  (For details, see "Using the Surround Function" on page 17.)
- When the power is turned on for the first time after installation of the unit or the clear button has been pressed, the loudness is ON.

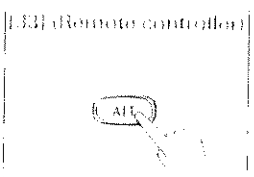


The loudness indicator will come on when it is turned on.
The loudness indicator will go off when it is released.



Lowering the Volume Instantly (Attenuator)

Press the button [33] to lower the volume to about 1/10 of its current setting.
(Press again to restore the original volume level.)
- This function can only be performed using the remote controller.



Indicator flashes

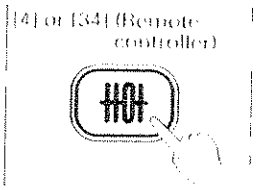
Using the Source Levelizer Adjuster (SLA)

Switching to CD playback after listening to an FM broadcast at a certain volume level may cause the sound volume to increase suddenly. This is caused by the difference between the FM broadcast output level and the CD recording level.

The source levelizer adjuster allows you to adjust for differences in volume, based on the FM volume level, after changing to the other sources (FM, AM, Tape, CD).

1. Tune to an FM radio broadcast and adjust the FM volume level.

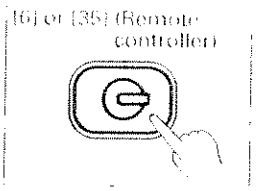
(For details, see "Using the Tuner" on page 29.)



2. Change the unit to CD playback.

Check the difference in volume when FM is changed to CD.
(For details, see "Playing Compact Discs" on page 40.)

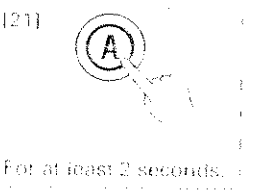
- The same output balance is stored in memory for the built-in CD player and the multi-play CD player.

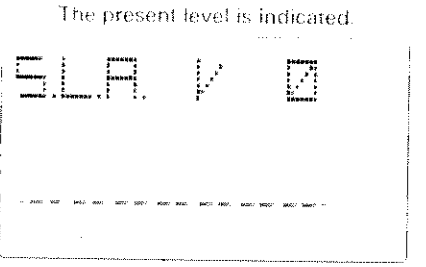


3. Specify the SLA mode.

Hold down the button [21] for at least 2 seconds.
(Press again to release.)

- Holding down the button for less than 2 seconds changes the unit to audition ON/OFF.
(For details, see "Using the Audition Function" on page 16.)





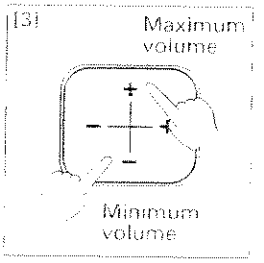
Note:

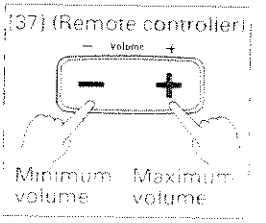
- *The next operation should be performed within 8 seconds after changing to the SLA mode; if not, the mode is automatically released after 8 seconds have elapsed.*

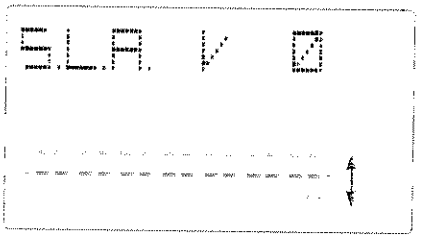
4. Adjust the output balance.

Adjust the CD volume based on the difference in volume to the FM volume.

Main unit operation:
Adjust the button [3] vertically.
Remote control operation:
Adjust the button [37].







High V –4
Low V –4

5. Adjust the volume for the other sources.

Perform steps 3 to 4 for the other sources (AM, tape deck), with the exception of the CD player.

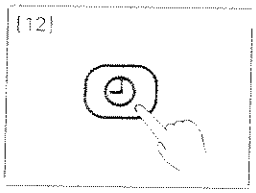
- Since the output balance control is based on the FM volume level, the FM volume level cannot be adjusted when an FM broadcast is being received.

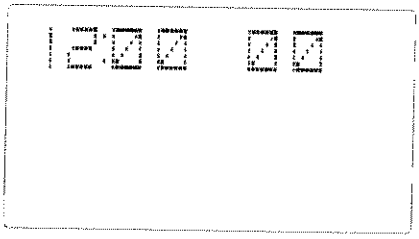
- For details on the use of the tape deck, CD player, or FM/AM listening, see the pages with their respective explanations.

Using the Clock Display

Turning on the Clock Display

Pressing the button [12] will change the message display component to clock display.
(Press again to release.)





- When the clock display is ON, pressing any button will turn the clock display OFF. The clock display will turn on again 25 seconds after the button operation.
- If the ignition switch is at either the ON or ACC position, you can change to clock display even when the unit is OFF.

Note:

- *Avoid using the clock display for long periods while the car engine is OFF since this may exhaust the battery.*

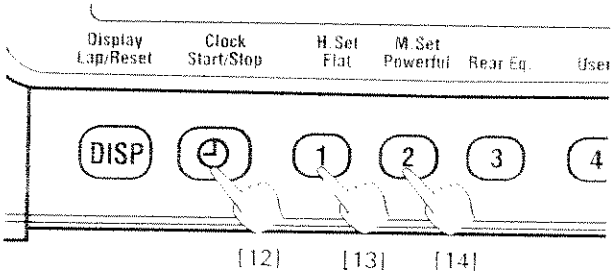
Adjusting the Clock

Adjusting the Hours

While holding down button [12], press button [13].
Each press of button advances the hour setting by one hour, and holding it down advances it at high speed.

Adjusting the Minutes

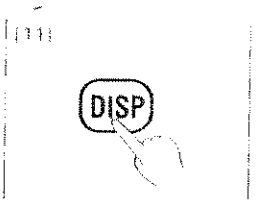
While holding down button [12], press button [14].
Each press of the button advances the minutes setting by one minute, and holding it down advances the setting at high speed.



- After completing the minute adjustment, releasing button [12] will start the clock operation from 0 second. For greater accuracy, synchronize the release of the button with a time report. If only the hour has been adjusted, the clock will not start from 0 second when the button is released.

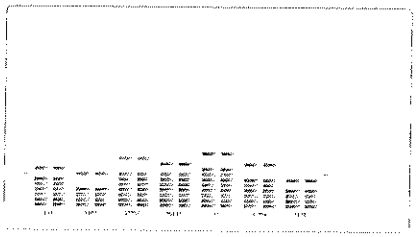
Changing the Display

Each press of the button [11] changes the display as shown below.



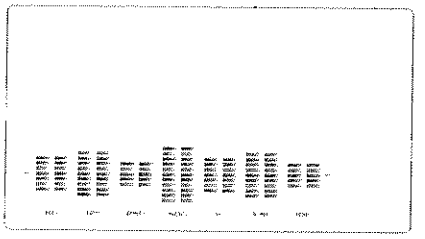
1. Peak Bound

The sound intensity at every frequency is displayed by height.



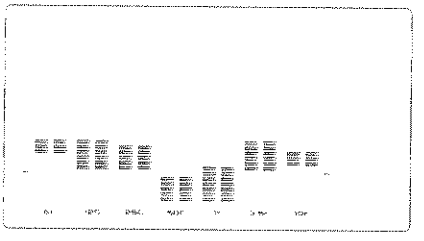
2. Symmetric

The sound intensity at every frequency is displayed by width.



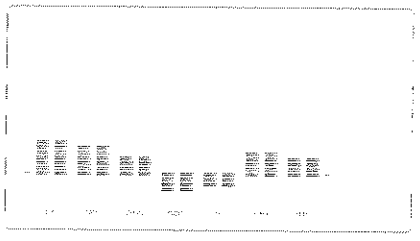
3. Equalizer Curve Symmetric

Centering on the figure of the equalizer curve, the sound intensity at each frequency is displayed by width.



4. Equalizer Curve

Display from the equalizer curve figure to flat (center).



5. Spectrum Analyzer Scan

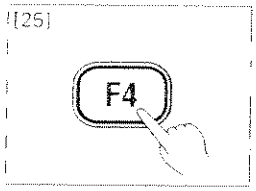
Indicates the four displays of (1), (2), (3), (4) in succession for about 10 seconds each.

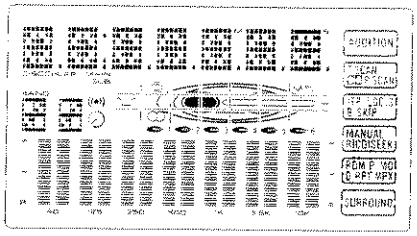
Using the Self-Demonstration Function

When the unit is OFF, the self-demonstration indications can appear on the display.

Pressing the button [25] while the unit is OFF begins the self-demonstration function.
(Press again to release.)

- See the sections on turning the unit OFF on the pages explaining radio, tape or CD.
- When the power is turned on for the first time after installation of the unit or the clear button has been pressed, the unit is set so that the self-demonstration function will begin.





Note:

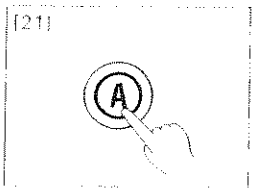
- *The self-demonstration indications will not appear when the clock display is ON. Release the clock display. (For details, see "Turning on the Clock Display" on page 14.)*
- *The self-demonstration indications will not appear when the ignition switch is OFF position. Turn the ignition switch to ON or ACC position.*
- *Avoid using the self-demonstration for long periods while the car engine is OFF since this may exhaust the battery.*

Using the Audition Function

Turning the audition function ON during tape or CD play will cause the voice of the singer will fade.
Using this function, you can enjoy karaoke performance.

Pressing the button [21] turns the audition function ON.
(Press again to release.)

- Holding down the button for at least 2 seconds changes the unit to the SLA mode.
  (For details, see "Using the Source Levelizer Adjuster" on page 13.)



Note:

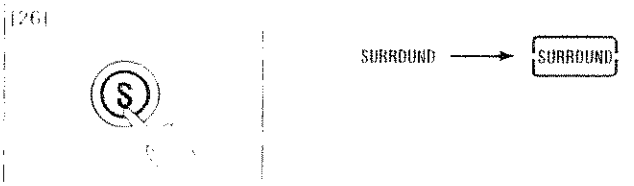
- *The audition function operates during tape or CD play. It will not operate when receiving the radio.*
- *The audition function will not function on multi-sound karaoke CD.*
- *The audition function operates for music recorded in stereo and will not function for music recorded in monaural.*
- *Depending on the music, the singer's voice may remain even though the music is recorded in stereo. Also, when the singer's voice has been recorded with an echo effect, it may not be possible to erase the echo and the singer's voice may be audible after a delay.*

Using the Surround Function

The surround function allows you to enjoy the powerful real feel of a concert hall or studio.

Pressing the button [26] turns the surround function ON. (Press again to release.)

- Holding down the button for at least 2 seconds changes the unit to loudness ON/OFF.
  (For details, see "Using Loudness" on page 12.)

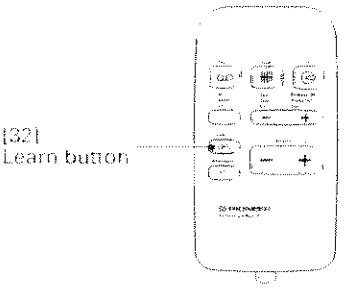


Note:

- *The surround function's effect operates with a 2 amplifier - 4 speaker system. The surround effect will not function with a 2 speaker system.*
- *The surround effect will not function with a monaural source.*
- *When the surround function is working, it is not possible to adjust the left and right balance of the rear speakers.*
- *The surround effect will vary, depending on the music source. The volume from the rear speaker may increase. In this case, use the fader to adjust the volume between front and rear speakers.*
  (For details, see "Adjusting the Fader" on page 28.)

Using the Learning Function on the Remote Controller

You can use the learn button on the remote controller to record an operation button from the main unit, thus allowing you the convenience of activating a frequently used button with the remote controller.



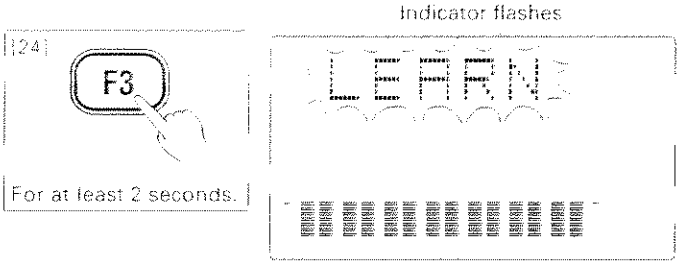
1. Specify the learning mode.

While the unit is ON, hold down the button [24] for at least 2 seconds.
When learning mode has been specified, "LEARN" will be indicated on the display.

- Holding down the button for less than 2 seconds changes to the function of the source you are currently hearing (tuner, tape, CD).

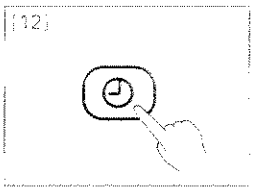
Note:

- *The next operation should be performed within 8 seconds after changing to the learnig mode; if not, the mode is automatically released after 8 seconds have elapsed.*



2. Memorize the desired button.

Press the button on the main unit that you want memorized on the remote controller.
When memorization is completed, "LEARN" will go off and the message display will return to its previous state.
You can now use the learn button on the remote controller to perform the same operation as the button on the main unit.



Example: Memorizing the clock display button

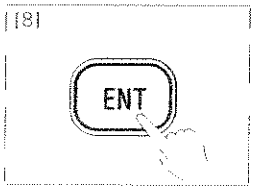
Using the Entertainment Function

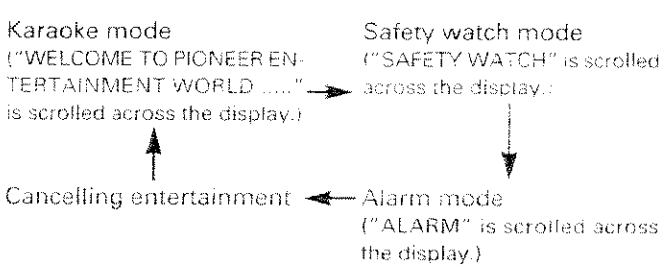
What is the Entertainment Function?

Apart from the conventional music sources, this unit incorporates an entertainment function to improve quality of the time spent within the car.
The entertainment function includes a karaoke, safety watch and alarm.

Switching between Karaoke, Safety Watch and Alarm

Each press of the button [8] switches the mode as shown below.




Karaoke mode
("WELCOME TO PIONEER ENTERTAINMENT WORLD ....." is scrolled across the display.)
Safety watch mode
("SAFETY WATCH" is scrolled across the display.)
Alarm mode
("ALARM" is scrolled across the display.)
Cancelling entertainment

- If the ignition switch is at either ON or ACC position, you can switch to safety watch mode or alarm mode, even when the unit is OFF.
  It is only possible to switch to karaoke mode when the unit is ON.

Using the Karaoke

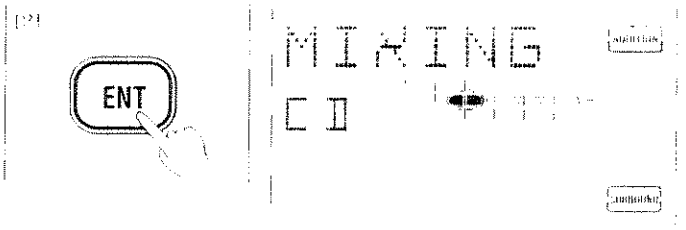
This unit can be used as a karaoke system when combined with the separately available Mic controller, (e.g., CD-MC2).

Before Using Karaoke

- *Although a commercially available mike is connected directly to the mike mixing terminal, the sound is not output through the mike (the mixing function will not work). When using this unit as a karaoke system, be sure to combine the unit with the separately available Mic controller (e.g., CD-MC2).*
- *Although the diriver is able to use the karaoke, never operate while driving or use in such way that it hinders your driving.*
- *For details on how to use the Mic controller or the mike, refer to the owner's manuals accompanying each.*

Enjoying a Karaoke Performance

Switching to karaoke mode turns the mike mixing function on, and sound can then be output through the mike. The audition and surround functions turn on simultaneously, and you can enjoy a karaoke performance.
(For details, see "Using the Audition Function" on page 16 and "Using the Surround Function" on page 17.)



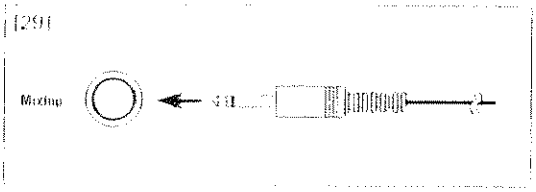
Note

The unit's karaoke performance uses the audition function to fade the singer's voice. Note the following:

- *The audition function operates during tape or CD play. It will not operate when receiving the radio.*
- *The audition function operates for music recorded in stereo and will not function for music recorded in monaural.*
- *Depending on the music, the singer's voice may remain - even though the music is recorded in stereo. Also, when the singer's voice has been recorded with an echo effect, it may not be possible to erase the echo and the singer's voice may be audible after a delay.*
- *The audition function will not function on multi-sound karaoke CD.*

1. Connect the Mic controller to the unit's mike mixing terminal.

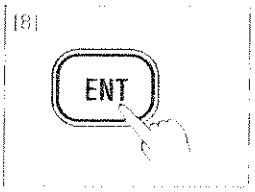
Before connecting, confirm that the Mic controller is OFF.
(See the owner's manual accompanying the Mic controller.)



2. Switch to karaoke mode while listening to tapes or CD's.

Press the entertainment button [8].
(For details, see "Switching between Karaoke, Safety Watch and Alarm" on page 18.)

- The audition and surround functions turn on when the unit switches to karaoke mode. You can turn these functions OFF if you wish.
(For details, see "Using the Audition Function" on page 16 and "Using the Surround Function" on page 17.)



3. Turn on the Mic controller.

To keep the mike's volume at the desired level, adjust the Mic controller, then turn it on.
(See the owner's manual accompanying the Mic controller.)

4. Select the music.

(For details, see the pages on tapes and CD.)

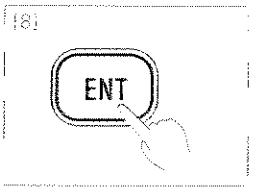
5. Sing to the music.

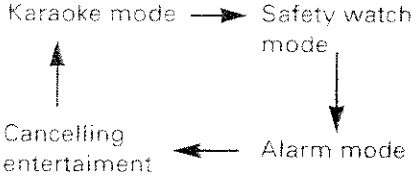
Use the Mic controller to adjust the sound volume of the mike.
(See the owner's manual accompanying the Mic controller.)

Stopping Karaoke

Press the entertainment button [8] again to release the karaoke mode. (Turn the Mic controller OFF simultaneously.)
Pressing the button during karaoke mode switches the mode as shown on the right.

- Releasing the karaoke mode turns the mike mixing function OFF. Your voice will not be output through the mike. The audition and surround functions return to their original state.

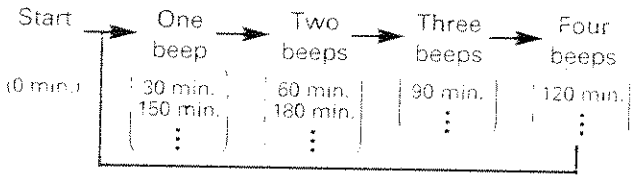




Using the Safety Watch

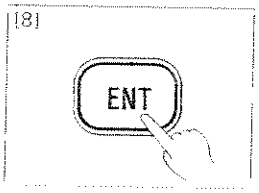
What is the Safety Watch?

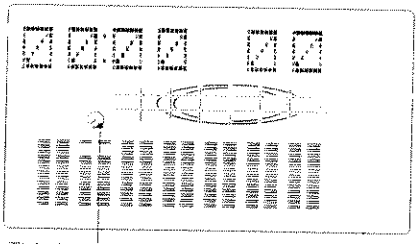
The built-in safety watch is a stop watch which emits beep sounds at fixed intervals.
A beep is emitted every 30 minutes, reminding the driver to take a break. Use this function when driving long distances.



Operating the Safety Watch

Press the entertainment button [8] to switch to safety watch mode.
(For details, see "Switching between Karaoke, Safety Watch and Alarm" on page 18.)
The time will be displayed after "SAFETY WATCH" has scrolled across the display.

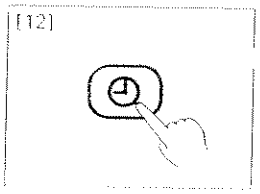




This indicator comes on during the safety watch operation.

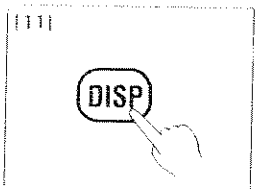
Starting/Stopping the Safety Watch

Press the button [12] to start the timing. The beep will sound every 30 minutes.
Press the button again to stop the timing.



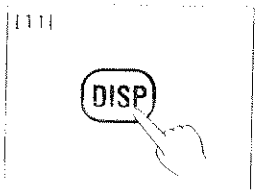
Viewing the Lap Time

Press the button [11] to display the time.
Press the button again to return to the elapsed time display.



Resetting the Time

Stop and press the button [11].
The display returns to 0.



- After it reaches "23:59 59", the clock returns to 0, and the timing continues.
- The timing will continue even if you switch to other modes after starting the safety watch, so the beep will still sound every 30 minutes.
- If the ignition switch is at either ON or ACC position, timing will continue even when the unit is OFF.
- Switching the ignition switch to OFF during timing will reset the time. Timing will start from 0 when you return the ignition switch to either ON or ACC position.
  Turning the engine on during timing will reset the time. Timing will begin from 0.

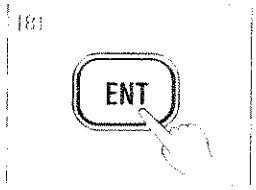
Using the Alarm

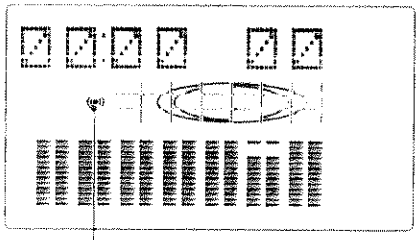
The Alarm Incorporated in the Unit

The unit incorporates a count-down style alarm.

Operating the Alarm

Press the entertainment button [8] to switch to alarm mode. (For details, see "Switching between Karaoke, Safety Watch and Alarm" on page 18.)
The time will be displayed after "ALARM" has scrolled across the display.

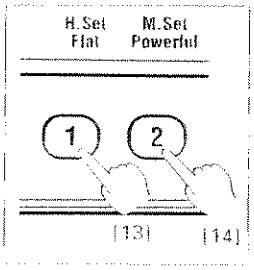




This indicator comes on during alarm operation.
(When the alarm is sounding, the indicator flashes.)

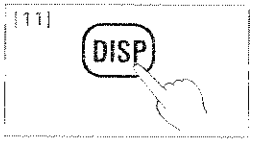
Setting the Time

Pressing button [13] will increase the time by 1 hour.
Setting can be done to max. 99 hours.
Pressing button [14] will increase the minute by 1 mintue.
Setting can be done to max. 59 minutes.



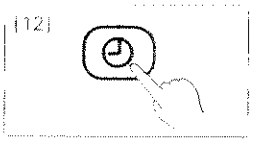
Resetting the Time

Press the button [11].
The display returns to 0.



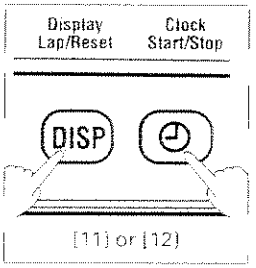
Starting/Stopping the Alarm

Press the button [12] to begin the count-down. When the preset time is reached, an electronic sound will ring continuously for 20 seconds.
Press the button again, before the preset time is reached, to stop the count-down.



Stopping the Alarm Sound

Press either button ([11] or [12]) to stop the alarm sound while it is ringing.



- The count-down will continue even if you switch to other modes after starting the alarm, so the alarm will still sound. You can still stop the alarm sound, even if you have already switched to another mode.

Note:

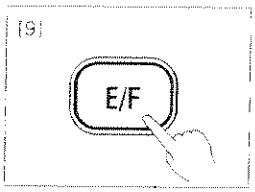
- *The count-down will continue regardless of whether the unit is ON/OFF, and regardless of the position (ON, ACC, OFF) of the ignition switch. However, the alarm will not sound, even when the preset time is counted down, if the time has been set while the ignition switch was OFF.*

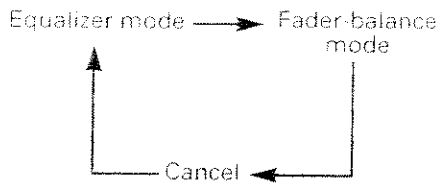
Using the Equalizer/Fader-Balance

Selecting Equalizer/Fader-Balance Mode

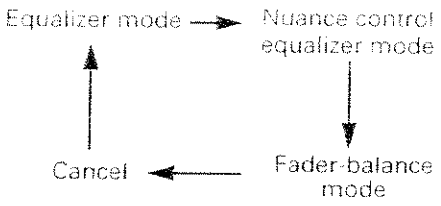
The graphic equalizer can be operated while the unit is in to equalizer mode. The fader and the balance can be adjusted while the unit is in fader-balance mode.

Each press of the button [9] switches the modes as shown on the right.





The equalizer curve's "powerful curve" and "rear speaker equalizing curve" are both stored in the unit's memory. Recalling either of these curves in equalizer mode will cause the modes to switch as shown on the right each time you press the button [9].
(For details, see "Recalling Equalizer Curves" and "Using the Nuance Control Equalizer" on page 24.)

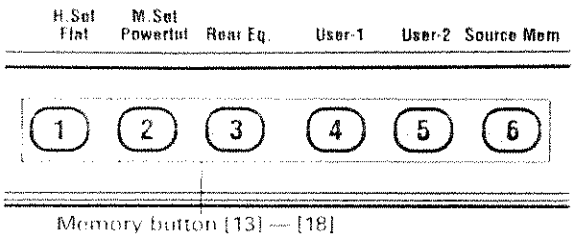


Note:

- *Operations should be performed within 8 seconds of each other; otherwise, both the equalizer and fader-balance modes are automatically released after 8 seconds have elapsed.*

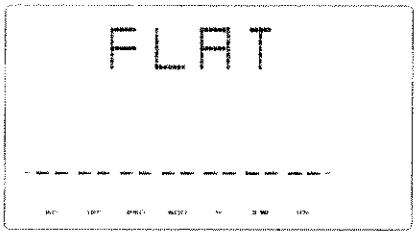
The Equalizer Curve Stored in the Unit's Memory (Original Preset)

The below equalizer curves are stored in the unit's memory buttons (1) — (6) ([13] — [15]).
(For details, see "Recalling Equalizer Curves" on page 24.)
You can also store your own equalizer curves in the memory buttons (1) — (6) ([16] — [18]).
(For details, see "Memorizing Equalizer Curves" on page 27.)



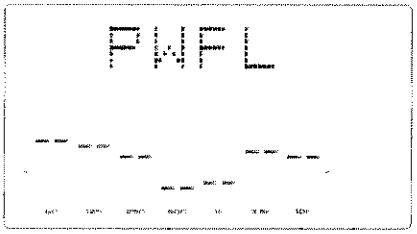
(1) ([13]) Flat Curve

Indicates unadjusted sound quality.
Alternately swithing between the equalizer curve you have set and the flat curve is a convenient way to check the effect of the equalizer.



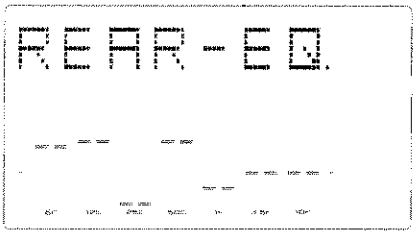
(2) ([14]) Powerful Curve

Weaker bass and treble sounds can be adjusted to powerful sounds.



(3) ([15]) Rear Speaker Equalizing Curve

Adjust the frequency response inside the vehicle so that the sound will be natural regardless of the type of vehicle.



Recalling Equalizer Curves

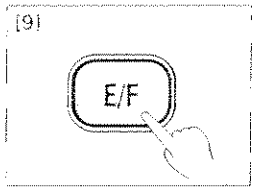
It is possible to recall equalizer curves stored in memory.

1. Specify equalizer mode.

(For details, see "Selecitng Equalizer/Fader-Balance Mode" on page 22.)

Note:

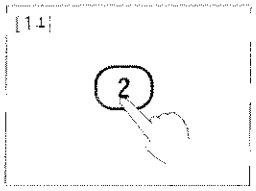
- *The next operation should be performed within 8 seconds after switching to the equalizer mode; if not, the mode is automatically released after 8 seconds have elapsed.*



2. Recall the equalizer curve.

Press the memory button in which the desired equalizer curve is stored.

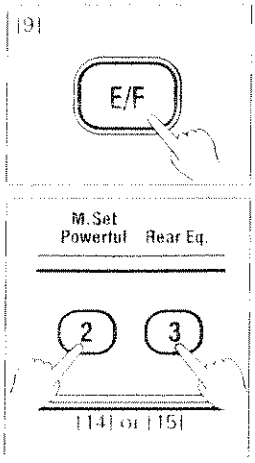
Example: Recalling a powerful curve



Using the Nuance Control Equalizer

It is possible to fine tune (nuance control) the equalizing curves in the powerful curve and the rear speaker equalizing curve after they are recalled.

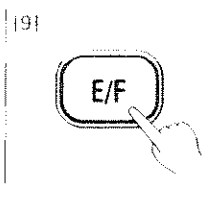
1. Specify equalizer mode and recall the powerful curve or rear speaker equalizing curve.

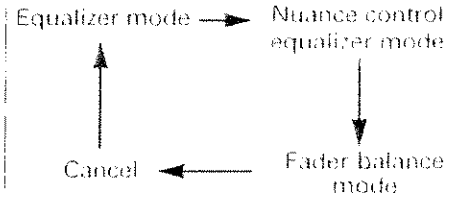


2. Specify nuance control equalizer mode.

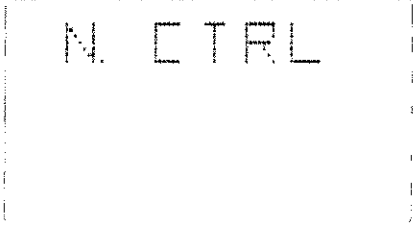
Press button [9] within 3 seconds of recalling either the powerful curve or rear speaker equalizing curve to switch to nuance control equalizer mode.

- When you have recalled either the powerful curve or the rear speaker equalizing curve, each press of the button [9] will switch the modes as shown on the right.



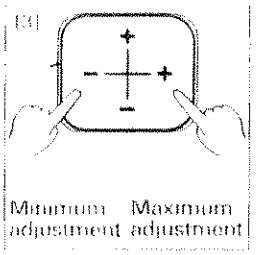


When the mode has switched to nuance control equalizer mode, "N. CTRL" will be displayed in the message display component.

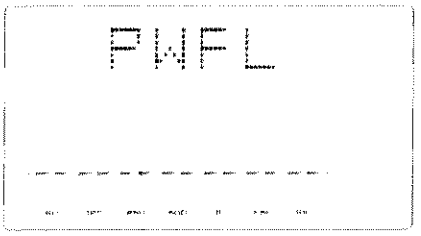


3. Fine tune.

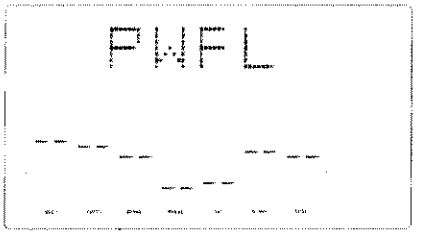
Adjust button [3] leftwards and rightwards.



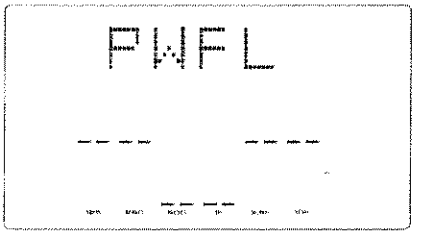
Minimum adjustment



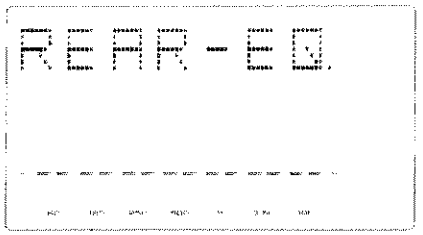
Normal adjustment
Powerful curve

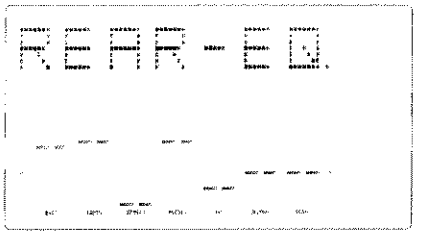


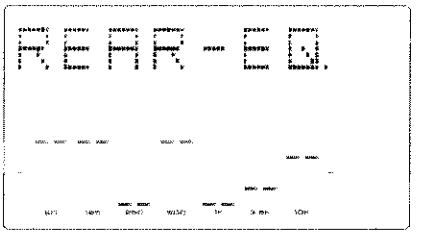
Maximum adjustment



Rear speaker equalizing curve





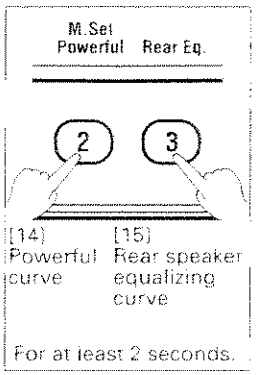


- When the curve is next recalled, an equalizer (nuance controlled) curve is recalled.

Returning to the Previous Setting before Nuance Control

The fine tuned (nuance controlled) equalizer curve can be returned to the previous setting before using the nuance control.

Hold down the memory button for at least 2 seconds when the mode is in either equalizer mode or nuance control equalizer mode.
When it has returned to the previous setting, "CLEAR" is scrolled across the message display component.

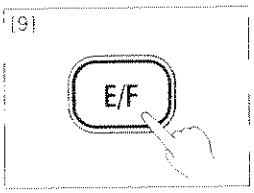


Setting Equalizer Curves

1. Specify equalizer mode.

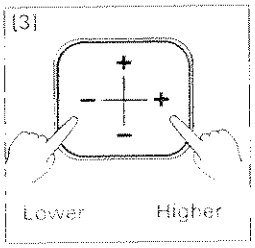
Note:

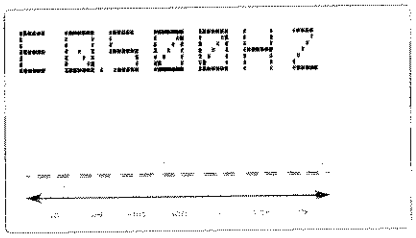
- *The next operation should be performed within 8 seconds after switching to the equalizer mode; if not, the mode is automatically released after 8 seconds have elapsed.*



2. Set the desired frequency.

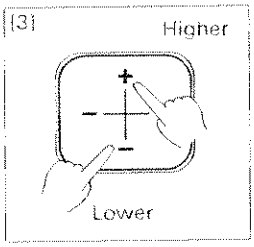
Adjust the button [3] leftwards and rightwards.

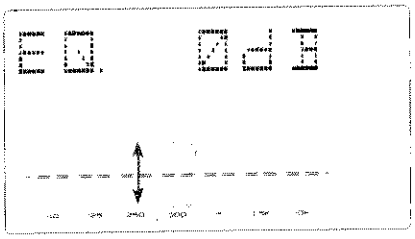




3. Set the desired level.

Adjust the button [3] vertically.





4. Set another frequency.

Repeat steps 2 and 3.

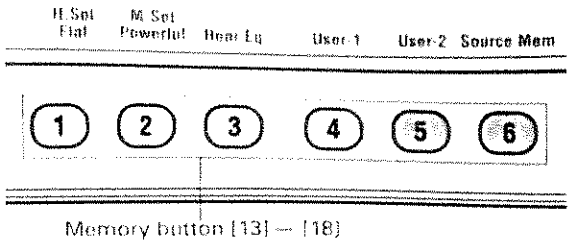
- You can set an equalizer curve easily if you set it when you have recalled either the powerful curve or the rear speaker equalizing curve after the first step. (For details, see "Recalling Equalizer Curves" on page 24.)

Note:

- *Recalling a second equalizer curve will reset the first curve. If you wish to preserve the equalizer curve, for details, see "Memorizing Equalizing Curves" on page 27.*

Memorizing Equalizer Curves

You can record the equalizer curve you set in the memory buttons [1] — [6] ([16] — [18]) of the unit.
You can store an equalizer curve common to all sources (FM, AM, tape, CD) in memory buttons [1] and [2]. ([16] [17])
(User's curve 1 and 2)
You can set and store equalizer curves differing by source in memory button [6]. ([18]) (Source memory)



1. Specify equalizer mode.

When you wish to store different equalizer curves for each source in memory button 6, change to the desired source before switching to equalizer mode.

Note:

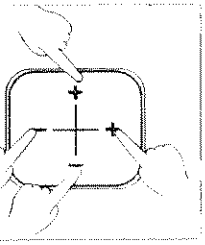
- *The next operation should be performed within 8 seconds after switching to the equalizer mode; if not, the mode is automatically released after 8 seconds have elapsed.*

[9]

2. Set the equalizer curves to your liking.

(For details, see "Setting Equalizer Curves" on page 26).

[3]



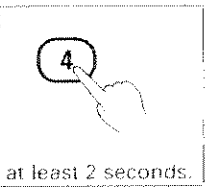
3. Memorize the setting.

Hold down the button for at least 2 seconds (a beep sounds). When memorization is completed, "MEMORY" is scrolled across the message display component.

- Holding down the button for less than 2 seconds will recall the equalizer curve.
(For details, see "Recalling Equalizer Curves" on page 24.)

Example: Storing an equalizer curve in user's curve 1

[16]

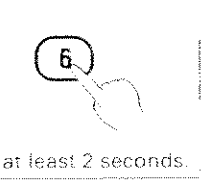


Storing Equalizer Curves in Memory by Source

You can set equalizer curves by source in memory button [6]. (Curves for each of the 4, FM, AM, tape and CD can be memorized.)

Set equalizer curves in accordance with the sound quality of individual sources when listening to each source and store them in memory button [6]. (Repeat steps 1 — 3 above for each source.) This will allow the equalizer curve to be switched automatically when you change sources, making it easier to use the equalizer curve for the source you are listening to.

[18]

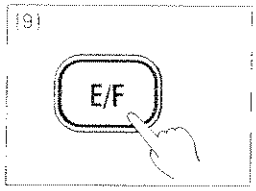


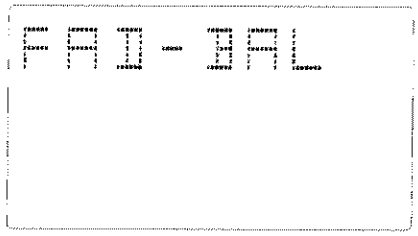
- The same equalizer curves can be memorized for the built-in CD player and for the multi-play CD player.
- See the pages on listening to the FM, AM, tape and CD.

Using the Fader-Balance

Specify fader-balance mode to adjust the balance between the front and rear speakers, and left and right speakers.

Press the button [9] to specify fader-balance mode.
(For details, see "Selecting Equalizer/Fader-Balance Mode" on page 22.)
When the mode has switched to fader-balance mode, "FAD-BAL" is displayed.





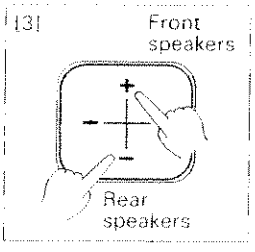
Note:

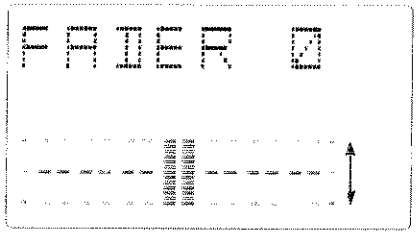
- *The next operation should be performed within 8 seconds after changing to the fader-balance mode; if not, the mode is automatically released after 8 seconds have elapsed.*

Adjusting the Fader

Adjust the button [3] vertically.

- In the case of a 2-speaker system, set the display to "FADER 0".

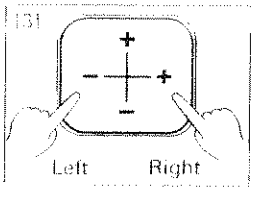


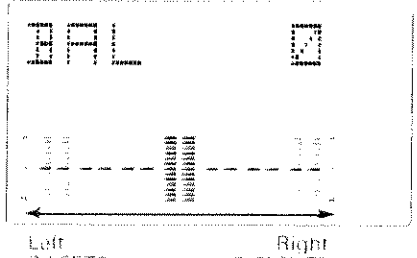


Front F.FRONT9
Rear F.REAR 9

Adjusting the Balance

Adjust the button [3] leftwards and rightwards.





Left B.LEFT9
Right B.RIGHT9

Using the Tuner

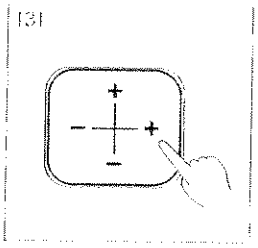
Before Listening to the Radio

Changing the Tuning Step

The main unit allows you to specify a tuning step of either 9 kHz or 10 kHz for the AM band. (The initial setting is 9 kHz.)
When used in North America, Central America, or South America, the tuning step should be changed to 10 kHz.

Specifications		Initial setting	New setting
AM	Tuning steps	9 kHz steps	10 kHz steps
	Frequency range	531 — 1,602 kHz	530 — 1,710 kHz

While pressing right side (+) side) of the button [3], turn the ignition switch from OFF to ON.



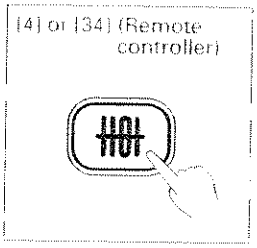
Note:

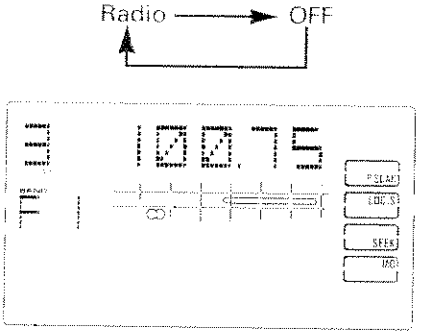
- *Changing the tuning step erases all frequencies that have been recorded in the preset memory.*
- *A break in the battery connection or pressing the clear button returns the tuning step setting to 9 kHz.*

Listening to the Radio

Selecting the Radio

Each press of the button [4] or [34] changes the unit as shown on the right.

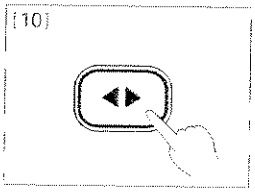


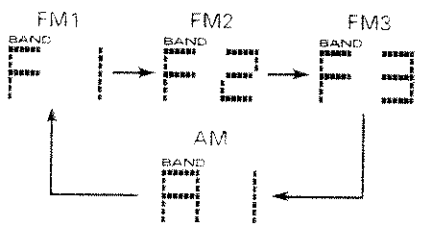


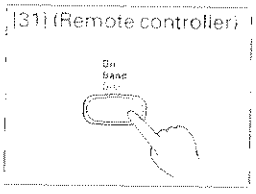
Selecting the Band

Each press of the button [10] or [31] changes the band as shown on the right.

- The three FM band divisions, FM1, FM2, and FM3, have been provided to allow three different FM stations to be memorized to a single button. The reception frequency band, however, is the same for all three divisions. (For details, see "Using the Preset Memory" on page 31.)





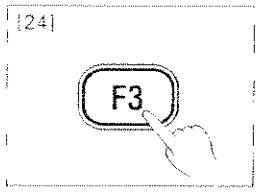


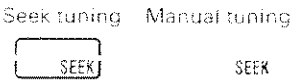
Radio Tuning

Tune in a station using either seek tuning or manual tuning.

Each press of the button [24] switches between seek tuning mode and manual tuning mode.

- Holding down the button for at least 2 seconds changes the unit to the remote control learn mode.
  (For details, see "Using the Learning Function on the Remote Controller" on page 17.)

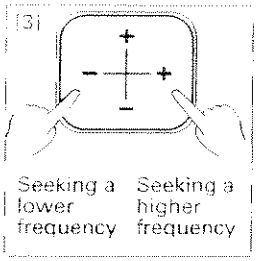




Seek Tuning

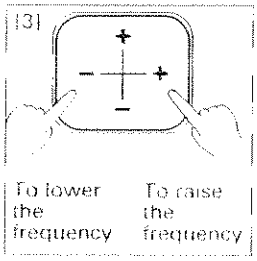
Seek tuning automatically receives a band with a frequency above a certain level. It is possible to change the level. (For details, see "Using Local Mode" on this page.)

Operate using the button [3] leftwards and rightwards when the unit is in seek tuning mode.
When the button is pressed, seek tuning begins searching for a station, then stops when it finds one.
(Press again to cancel seek tuning.)



Manual Tuning

Operate using the button [3] leftwards and rightwards when the unit is in manual tuning mode.
(Holding the button down changes the frequency at high speed.)



- The frequency changes in 50 kHz steps in the FM band and in 9 kHz steps in the AM band.

Note:

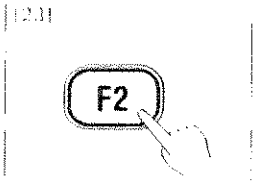
- *The tuning step in the AM band changes to 10 kHz when the procedure described in "Changing the Tuning Step" on page 29 is performed.*
- *Seek tuning and manual tuning will not function when the unit is in either equalizer or fader/balance mode. Make sure these modes are OFF before using these functions.*
  (For details, see "Selecting Equalizer/Fader/Balance Mode" on page 22.)

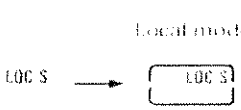
Using Local Mode

Operate seek tuning after the unit is switched to local mode to enable the tuner to limit reception to stations with comparatively strong transmission signals. This is convenient for tuning in to AM stations at night, when reception is weak and full of noise.

Press the button [23] to switch to local mode.
(Press again to release.)

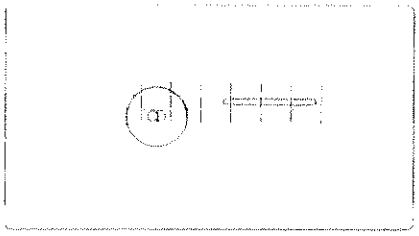
- For details on seek tuning, see "Radio Tuning" on this page.





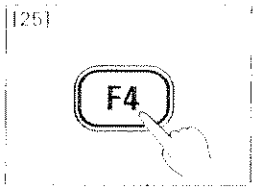
FM Stereo Broadcasts

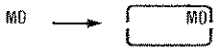
The ST indication appears on the display during the reception of FM stereo broadcasts.



Noise in FM Stereo Broadcasts

If you feel there is too much noise in a FM stereo broadcast, press the button [25]. The reception switches to monaural and the noise is reduced.
(Press again to return to stereo reception.)





Memorizing a Station

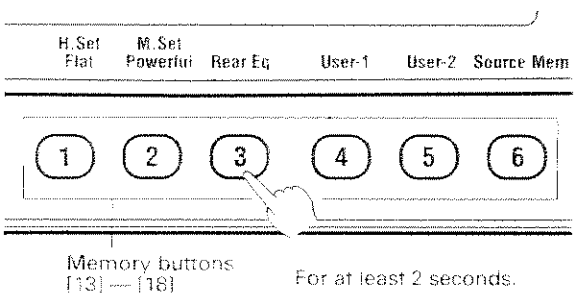
Using the Preset Memory

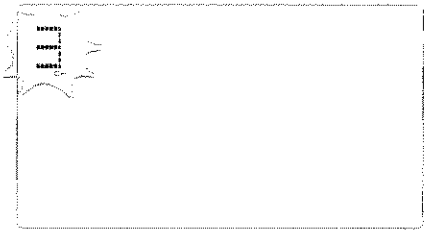
The unit can store the station being received in memory buttons [1] — [6] ([13] — [18]).

When you have selected the desired station, hold down the number of the button in you wish to store the station for at least 2 seconds (until a beep sounds).
The number of the button you have pressed will flash on the display until the memorization is completed.

- Holding down the button for less than 2 seconds changes the unit to the preset tuning mode.
  (For details, see "Preset Tuning" on page 33.)

Example: Storing a station in memory button [3].





Indicator flashes during memorization

Indicator stops flashing when stored

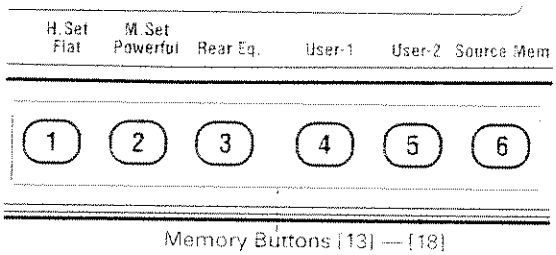
- If the selected button holds a previously stored station, the old station is erased and replaced with the new station.
- Up to 18 FM stations (6 stations each for FM1, FM2, and FM3), and 6 AM stations can be memorized.

Note:

- *Preset memory will not function when the unit is in either equalizer or fader-balance mode. Make sure these modes are OFF before using this function.*
  (For details, see "Selecting Equalizer/Fader-Balance Mode" on page 22.)

Using Best Stations Memory (BSM)

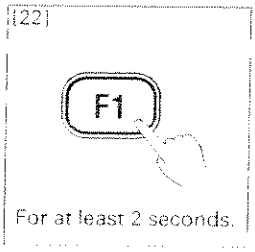
BSM automatically tunes in 6 stations with strong receptions, and stores them in memory buttons ① — ⑥ ([13] — [18]) (either FM1, 2, 3 or AM).



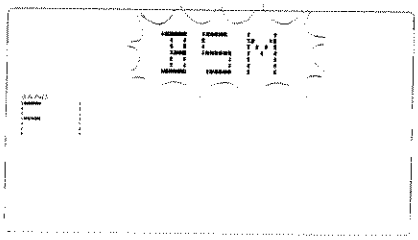
Memory Buttons [13] — [18]

Select the band you wish to memorize, and hold down the button [22] for at least 2 seconds (until a beep sounds). "BSM" flashes in the message display component until memorization is completed.
(Press again to release.)

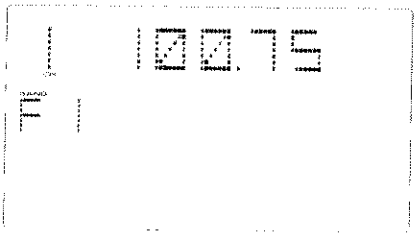
- Holding down the button for less than 2 seconds switches the unit to preset scan tuning.
  (For details, see "Preset Scan Tuning" on page 33.)
- Stations with strong receptions are stored in memory buttons ① to ⑥.
- When the number of stations with strong receptions is less than 6, the preset stations in the memory buttons remain unchanged.
- If there are few strong stations in the area, BSM operation continues for about 30 seconds before turning off.



For at least 2 seconds.



BSM starts
Indicator flashes



BSM ends
Station memorized to memory button [1]

Using Preset Tuning and Preset Scan Tuning

Preset tuning allows you to recall one station recorded in a memory button. Preset scan tuning allows you to recall 6 preset stations in consecutive order recorded in the memory buttons.

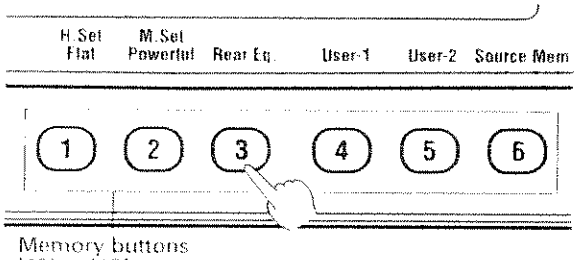
Preset Tuning

Preset tuning recalls stations recorded in the memory buttons.

Main unit operation:
Press the button in which the desired station is recorded.

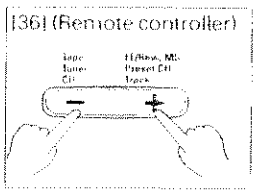
- Holding down the button for at least 2 seconds changes the unit to the preset memory.
  (For details, see "Using the Preset Memory" on page 31.)

Example: Recalling the station stored in memory button [3].



Memory buttons
[13] — [18]

Remote control operation:
Each press of the respective side of the button [36] shifts the memory button as shown on the right.



Pressing +: 1 → 2 → 3 → ...

Pressing –: 6 → 5 → 4 → ...

Note:

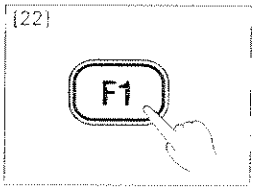
- *Preset tuning will not function by the main unit operation when the unit is in either equalizer or fader-balance mode. Make sure these modes are OFF before using this function.*
  (For details, see "Selecting Equalizer/Fader-Balance Mode" on page 22.)

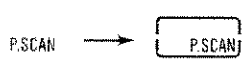
Preset Scan Tuning

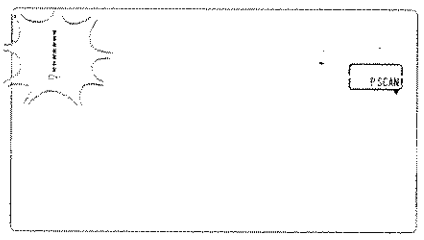
Preset scan tuning recalls the stations recorded in the memory buttons in consecutive order for about 8 seconds each.

Press the button [22] to recall stations recorded in the memory buttons in consecutive order, beginning with the station recorded in memory button [1]. The number of the button being recalled will flash on the display.
When you have received the desired station, press the button again to cancel the function. You will then be able to receive the station continuously.

- Holding down the button for less than 2 seconds switches the unit to BSM.
  (For details, see "Using Best Stations Memory" on page 32.)







Indicator flashes

Using the Tape Deck

Cassette Tape Handling

- *Do not place tapes near magnets.*
- *Store tapes in a place not subject to direct sunlight.*
- *Rewind cassettes and store them in their cases when not in use.*

Precautions on Cassette Play

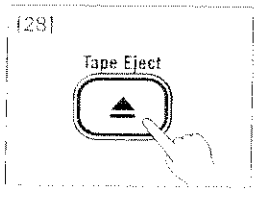
- *A dirty playback head is a cause of a variety of problems, such as loss of high frequencies, poor sound quality, and reduced sound output. To maintain optimum sound quality, the playback head should be cleaned periodically.*
  (For details, see "Head Cleaning" on page 39.)
- *When a tape is unevenly wound, the higher force required to move it may activate the tape end detection and cause tape play to automatically switch directions. If this occurs, use fast forward or rewind to wind the tape evenly before attempting playback.*
  (For details, see "Using Fast Forward, Rewind, and Music Search" on page 37.)

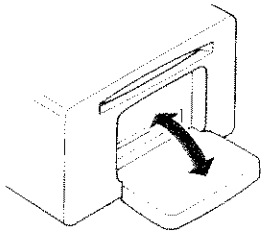
Listening to a Cassette

Opening and Closing the Display

The unit incorporates an open and close display. Open the display to find the cassette slot.

Press the button [28] to open the display.
Press again to close the display.
- The display will close automatically if you lift it slightly.





Precautions on Open-and-Close Display:

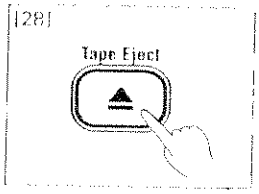
- *Do not place objects on the display after opening and do not press downwards as this may result in breakdown.*
- *Avoid catching objects while opening and closing the display. Should the display stop while being opened or closed because something is caught in the display, the tape function will stop. In this case, remove the obstacle and press the button [28]. The function will then return to normal.*

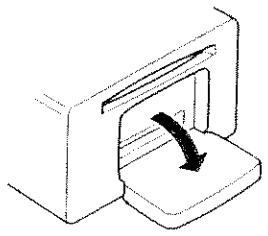
Loading a Cassette

Before Loading a Cassette:

- *A loose or warped label on a cassette may interfere with the eject mechanism of the deck, or cause the cassette to become jammed in the deck. Labels in such condition should be removed completely before loading the cassette.*
- *Do not use C-120 (120 minute) cassettes. The tape is very thin and can stretch and cause poor operation.*

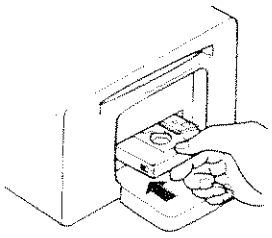
1. Open the front panel.

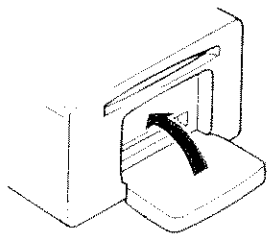




2. Insert a cassette.

The cassette is automatically loaded and play begins.

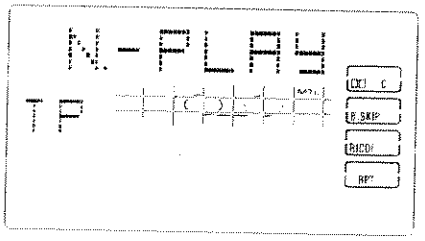




When play begins, the following words will be indicated in the message display component.

N.-PLAY: Normal play
(Indicated when the upper side of the tape facing you is played.)

R.-PLAY: Reverse play
(Indicated when the lower side of the tape is played.)

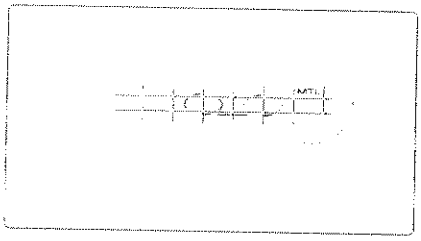


Note:

- *A defect in the cassette, such as broken or tangled tape, may cause the unit to turn off, or cycle ON and OFF without playing. If this occurs, eject the cassette and check it for defects.*
  (For details, see "Ejecting a Cassette" on page 36.)

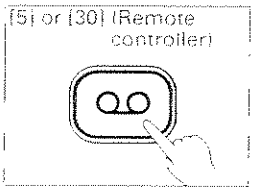
The Metal Tape Display (Auto Tape Selector)

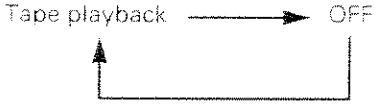
The main unit automatically detects the tape type when a cassette is loaded, then sets the play equalization to the proper level (70µs/120µs). When metal tape or CrO_2 tape is loaded, MTL appears on the display. No indication appears for normal tape.



Turning Tape Playback ON/OFF

When the cassette tape is loaded, press the button [5] or [30] to switched as shown on the right.

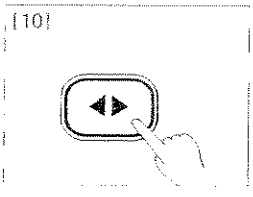


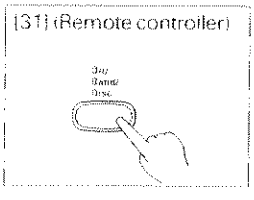


Changing Tape Direction

Press the button [10] or [31] to switch between the A side and B side of the tape.

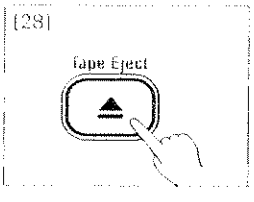
- Performing this procedure during fast forward, rewind, music search, or music repeat, ends the respective function, but does not change the tape direction.

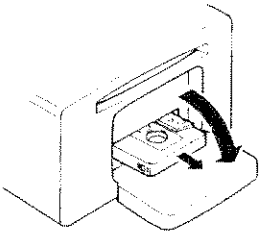




Ejecting a Cassette

Press the button [28] to open the display. The tape will eject automatically.
Remove the tape and close the display.





(Press the button again or push the cassette tape back in to load the tape automatically and close the display. Play will resume.)

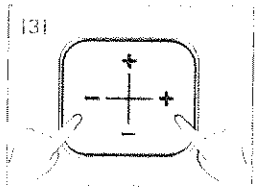
Note:

- *Leaving the display open may hinder safe driving. Keep the display closed under normal conditions.*

Convenient Function for Tape Playback

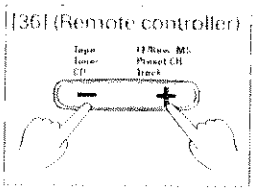
Using Fast Forward, Rewind, and Music Search

Main unit operation:
Operate using the button [3] leftwards and rightwards.
Remote control operation:
Operate using the button [36].
Each press of the respective side of the button [36] shifts the function as shown on the right.



Pressing + : Fast forward → Forward music search
End function

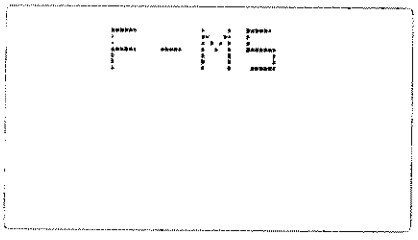
Pressing – : Rewind → Reverse music search
End function



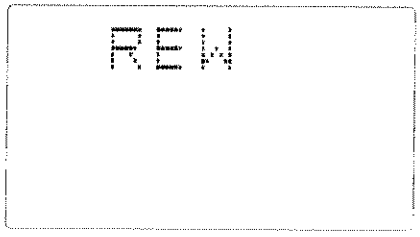
Display Indication for Each Function

Fast forward

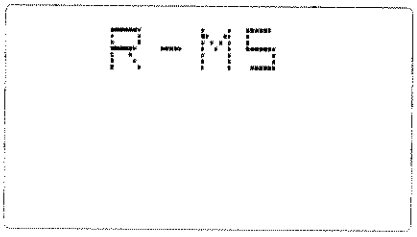
Forward music search



Rewind



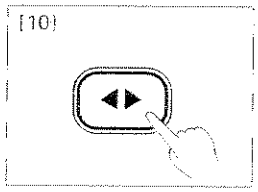
Reverse music search

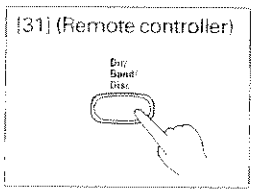


- The right buttons may also be pressed to end fast forward, rewind, and music search.
- Music search may not function properly for the following types of recordings. This is due to the recording and is not a malfunction of the unit.
  —Recordings with a blank of less than 4 seconds between selections.
  —Recorded dialog with continuous pauses of 4 seconds or more.
  —Low-volume passages of 4 seconds or more.

Note:

- *Fast forward, rewind and music search will not function by the main unit operation when the unit is in either equalizer or fader-balance mode. Make sure these modes are OFF before using this function.*
  (For details, see "Selecting Equalizer/Fader-Balance Mode" on page 22.)



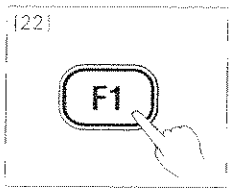


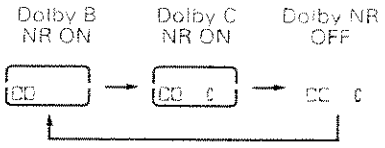
The Dolby B and C NR Systems

The Dolby B and C NR systems minimize the amount of noise produced during cassette playback. Cassettes recorded with the Dolby B NR system or the Dolby C NR system should be played on the deck with the respective Dolby NR system turned on.

Each press of the button [22], switches Dolby NR as shown on the right.

- Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
  "DOLBY" and the double-D symbol ⊡⊡ are trademarks of Dolby Laboratories Licensing Corporation.

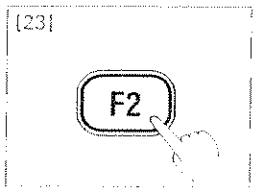




Using Blank Skip

You can use the blank skip function to record a blank of 12 seconds or more to ensure the efficient operation of the music search function.

Press the button [23] to switch to blank skip mode.
(Press again to release.)

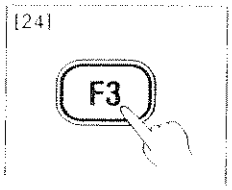


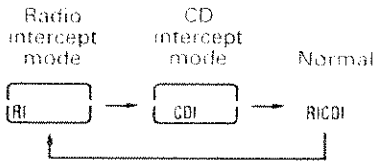
Using Radio/CD Intercept

The radio/CD intercept allows you to listen to the radio or CD while fast forwarding or rewinding a cassette.

Each press of the button [24], switches the function as shown on the right.

- Holding down the button for at least 2 seconds changes the unit to the remote control learn mode.
  (For details, see "Using the Learning Function on the Remote Controller" on page 17.)

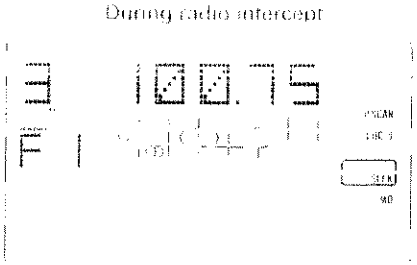




Radio Intercept

The unit will automatically switch to radio while fast forwarding or rewinding.

- During radio intercept, radio is displayed. (See the pages on radio.)



CD Intercept

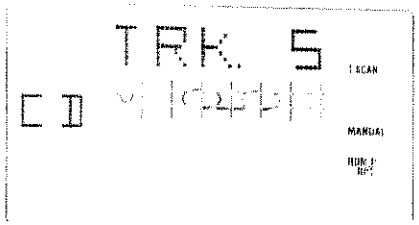
The unit will automatically switch to CD play while fast forwarding or rewinding.

- During CD intercept, CD is displayed. (See the pages on CD.)

Note:

- *The CD intercept will not function when a CD is not loaded into the unit. (When the separately available multi play CD player is connected, the unit will switch to multi play CD player if a magazine is loaded in the player.)*

During CD intercept



Note:

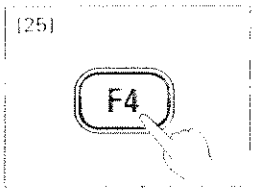
- *The radio/CD intercept will not function when music search or blank skip functions are in operation.*

Using Music Repeat

The music repeat function allows you to listen to a selection as many times as you wish.

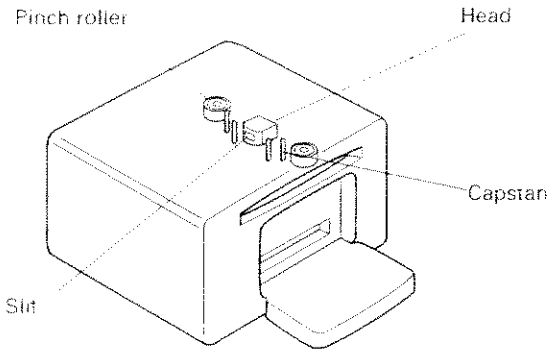
Press the button [25] to switch to repeat mode.
Activate music repeat while the desired selection is being played.
(Press again to release.)

- Music repeat may not function properly for the following types of recordings. This is due to the recording and is not a malfunction of the unit.
  - —Recordings with a blank of less than 4 seconds between selections.
  - —Recorded dialog with continuous pauses of 4 seconds or more.
  - —Low-volume passages of 4 seconds or more.



Head Cleaning

The playback head performs an important role in the reproduction of recordings. If the head should become dirty, tone quality suffers and skipping will occur. Therefore, the head should be cleaned periodically (one or twice a month). If a cotton swab is used, dip the swab into absolute alcohol or head cleaning fluid and use it to scrub the slit in the tape head.



Head Position

The head is located on the right side of the tape slot, approximately halfway between the front of the unit and the back.

Note:

- *Don't use metal or a magnet on the head. Never use tweezers or pliers wrapped with cotton or gauze. This can scratch the head.*
- *When using a cleaning tape, play it once on one side for normal cleaning. Too much use of the cleaning tape will increase head wear. Be sure to read the cleaning tape instructions before use.*

Playing Compact Discs

Discs

- *Only use compact discs (optical digital audio discs) bearing the mark shown on the right. (Fig. 1)*

Fig. 1

- *The disc revolves at high speed within the player unit, so defective (cracked or badly bent) discs should not be used. (Fig. 2) (Fig. 3)*

Fig. 2

Fig. 3

Handling Compact Discs

- *Be sure never to touch the signal surface when handling discs. Pick up discs by grasping the outer edges or the edge of the hole and the outer edge. (Fig. 4) (Fig. 5)*

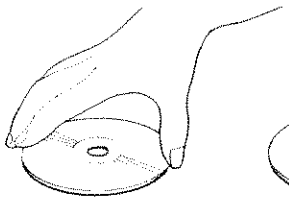


Fig. 4

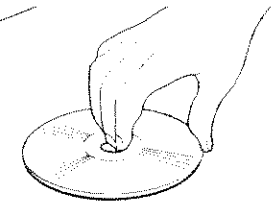


Fig. 5

- *Do not affix paper or tape, and avoid scratching the side of the disc which contains the label (contents of disc). (Fig. 6)*
- *Dust and/or finger smudges will have no direct effect on the signal recorded on the disc, but dirt can decrease the amount of light reflected from the recorded surface, thus affecting sound quality. If the disc should become soiled, gently wipe the surface with a soft lint-free cloth, wiping from the center of the disc to the edge. (Fig. 7)*
- *Do not use record sprays or antistatic agents. Such volatile chemicals as benzine and thinner can also damage the surface of the disc and should not be used. (Fig. 8)*
- *As with traditional audio records, compact discs are made of plastic. To avoid warping, keep the discs in their cases and do not store them in places exposed to direct sunlight. (Fig. 9)*

Fig. 6

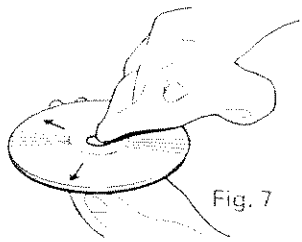


Fig. 7

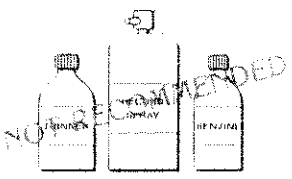


Fig. 8

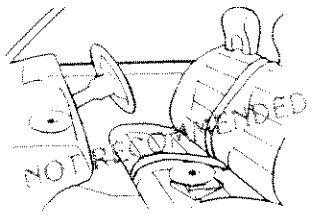


Fig. 9

The Compact Disc Playing Environment

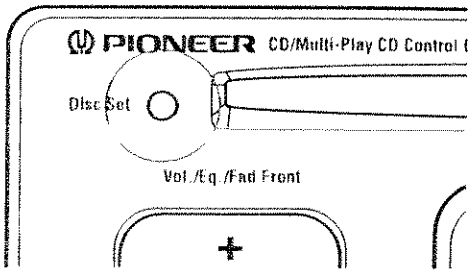
- *Driving over bumpy surfaces or cracks in the road may cause skipping.*
- *When the vehicle interior is very cold, turning on the car heater, and then the multi-play CD player immediately after, may cause frost to form on the disc or the player's internal optics (prism and lenses), thus resulting in abnormal sound reproduction. If the disc is frosted, wipe it with a soft cloth. If the internal optics are frosted, wait about an hour until the unit returns to normal condition.*

Listening to the CD with the Built-in CD Player

Loading a Disc

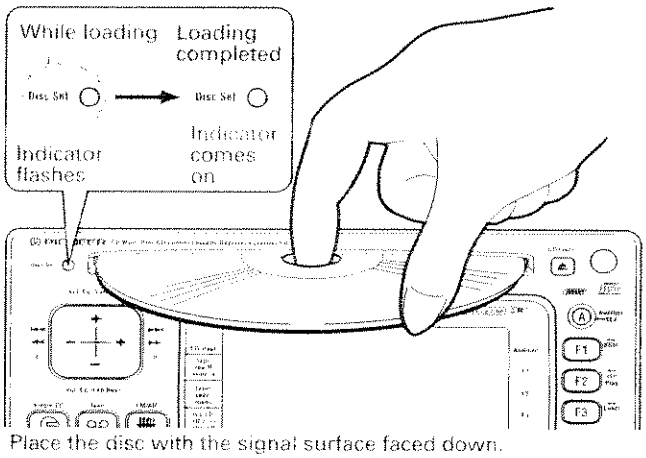
Before Loading a Disc:

- *A disc is already loaded if the indicator shown on the right is on. In this case, do not insert another disc as this may scratch the discs or cause a breakdown.*
- *Do not insert two stacked discs, as this may cause a breakdown.*
- *This unit can play 8 cm CD's without an adaptor. Do not use an adaptor when playing 8 cm CD's as the adaptor may become unplugged and the disk may not eject.*



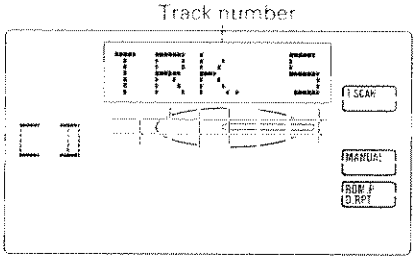
Insert the disc halfway.
The disc loads automatically and play begins.

- If you have mistakenly inserted the disc with the signal surface facing up, the disc will be automatically ejected.



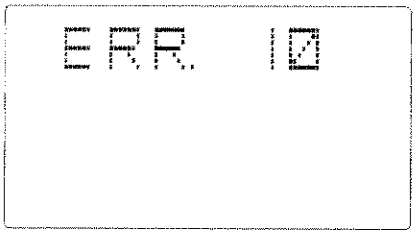
Place the disc with the signal surface faced down.

When loading has been completed, the track number will be displayed in the message display component.



Note:

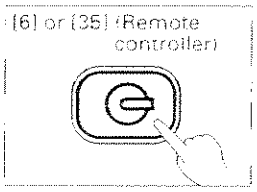
- *When the disc stops halfway, even though it is being inserted, or when play doesn't begin even though a disc is loaded, it may indicate an abnormality in the disc. Remove the disc and load another disc.*
  (For details, see "Ejecting a Disc" on page 42.)
- *When an abnormality in the built-in CD player — such as "built-in CD player can not be operated" or "the music stops during CD playback" — has occurred, an error message will be indicated on the display. In this case, see to page 50, "Error Mode", and check the details of the error.*

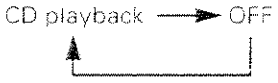


Turning Built-in CD Playback ON/OFF

When a disc is loaded, each press of the button [6] or [35] changes the built-in CD player as shown on the right.

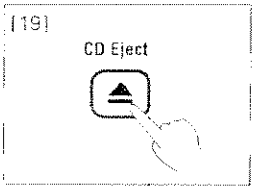
- This operation may be different when the separately available multi-play CD player is connected. (For details, see "Using the Multi-Play CD Function" on this page.)

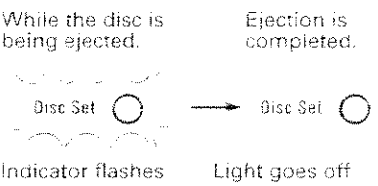




Ejecting a Disc

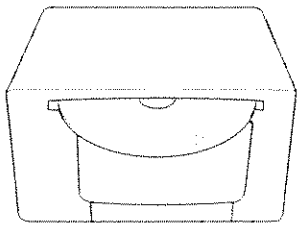
Press the button [19] to eject the disc.





Note:

- *Do not leave the disc in the state shown on the right for long periods. This will cause the disc to warp. Also, do not drive with an 8cm CD left in this state. The disc may fall out from vibrations caused during driving.*



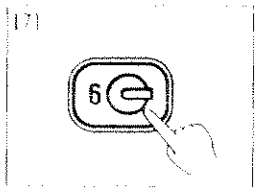
Playing the Multi-Play CD Player

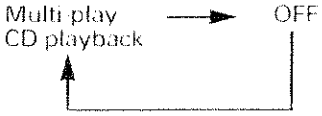
Using the Multi-Play CD Function

This unit can, in addition to playback on the built-in CD player, function as a controller for the separately available multi-play CD player.

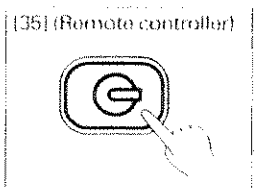
- See the owner's manual of the multi-play CD player for details on the loading and removal of magazines.

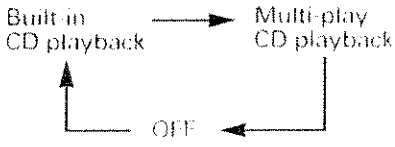
Main unit operation:
When a magazine is loaded in the multi-play CD player, each press of the button [7] changes the multi-play CD player as shown on the right.



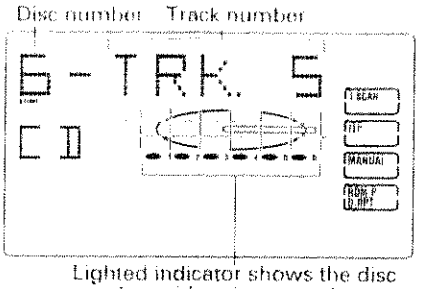


Remote control operation:
Pressing button [35] will change the function as shown on the right, when the CD is set for the built-in CD player and the magazine is set for the multi-play CD player. The function will not change when either the CD or the magazine are not set.





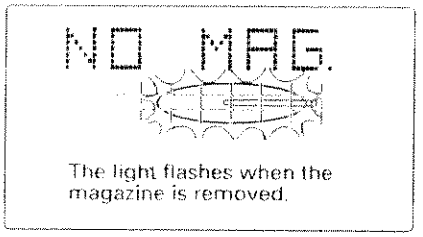
When the unit changes to multi play CD player, the disc number and the track number will be displayed in the message display component.



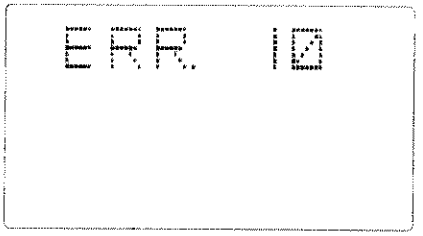
Lighted indicator shows the disc number within the magazine.

Note:

- *After a magazine is loaded into the multi-play CD player, it takes about 10 or more seconds for CD play to begin. This is because the multi-play CD player is confirming whether or not there is a disc in the magazine. During this time, "LOADING" is indicated on the message display component.*
- *The unit will not switch OFF, even should the magazine be removed from the multi-play CD player during play. Be aware that maintaining this state for long periods may exhaust the car battery.*
- *When an abnormality in the multi-play CD player — such as the "CD player cannot be operated" or "the music stops during CD playback" — has occurred, an error message will be indicated on the display. In this case, see to page 50, "Error Mode", and check the details of the error.*



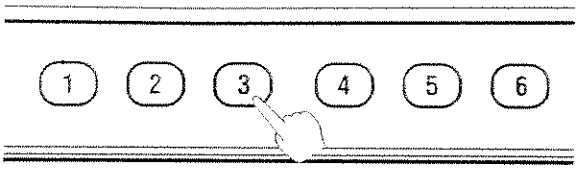
The light flashes when the magazine is removed.



Using Disc Number Search to Select a Disc

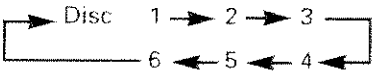
Main unit operation:
Press the button of the desired disc number.

[13] — [18]



Remote control operation:
Each press of the button [31] advances the disc number by one.

[31] (Remote controller)



- The unit will not change to a specified disc number if the respective tray in the magazine is empty.
- It may take some time before disc play starts after pressing the button if the disc selection requires disc changing in the multi-play CD player.

Note:

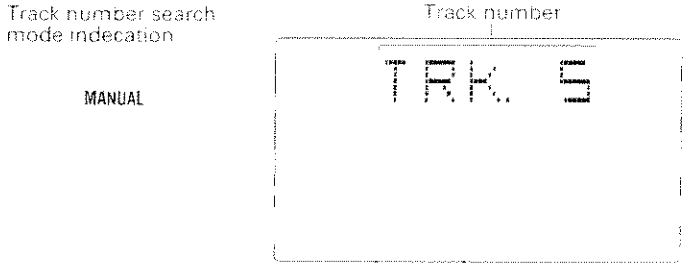
- *Disc number search will not function by the main unit operation when the unit is in either equalizer or fader-balance mode. Make sure these modes are OFF before using this function.*
  (For details, see "Selecting Equalizer/Fader-Balance Mode" on page 22.)

- Common functions on the built-in CD player and the multi-play CD player.

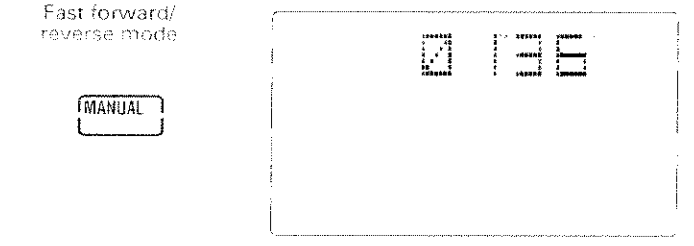
Using Track Number Search

1. Make sure that the track number search mode is ON.

Confirm that the track number is indicated on the display.

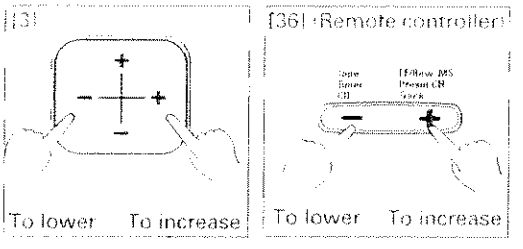


- The unit will switch to fast forward/reverse mode when the elapsed playing time is displayed, as shown on the right. Release fast forward/ reverse mode. See next section, "Using Fast Forward and Reverse" for details on releasing this mode.



2. Specify the desired track number.

Main unit operation:
Operate using the button [3] leftwards and rightwards.
Remote control operation:
Operate using the button [36].
(Hold down the button to change at high speed.)



- When using the remote controller, track number search may be performed in fast forward and reverse mode also.

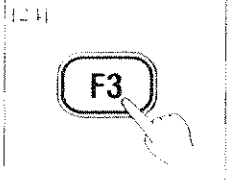
Note:

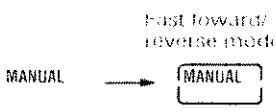
- *Track number search will not function by the main unit operation when the unit is in either equalizer or fader balance mode. Make sure these modes are OFF before using this function.*
(For details, see "Selecting Equalizer/Fader Balance Mode" on page 22.)

Using Fast Forward and Reverse

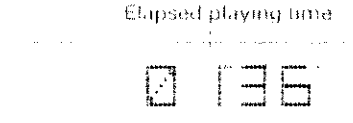
1. Specify the unit in fast forward/reverse mode.

Press the button [24] to switch the unit to fast forward/reverse mode.
(Press again to release.)





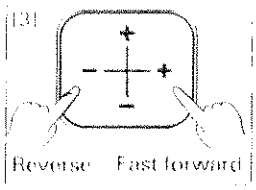
When the unit is in fast forward/reverse mode, the elapsed playing time is displayed.



- Holding down the button for at least 2 seconds changes the unit to the remote control learn mode.
(For details, see "Using the Learning Function on the Remote Controller" on page 17.)

2. **Start fast forward or reverse.**

Operate using the button [3] leftwards and rightwards.



- Playback can be heard while fast forwarding or reversing the disc.

Note:

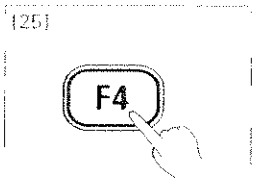
- *Fast forward/reverse will not function when the unit is in either equalizer or fader-balance mode. Make sure these modes are OFF before using this function. (For details, see "Selecting Equalizer/Fader-Balance Mode" on page 22.)*

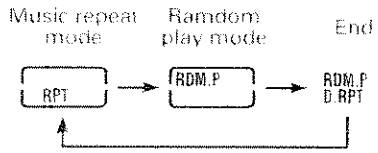
Using Disc Repeat*, Music Repeat and Random Play

* Exclusive multi-play CD palyer function

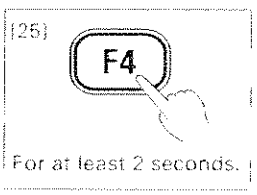
Apart from normal play, this unit can also operate music repeat (repeated playback of the same selection) and random play (playback of selections in a random order).
When the separately available multi-play CD player is connected, disc repeat playback (repeated playback of the same disc) is also possible in addition to music repeat and random play.

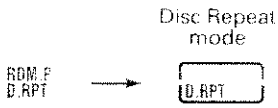
Each press of the button [25], changes the mode as shown on the right.





When playing the Multi-Play CD Player:
Holding down the button [25] for at least 2 seconds switches the unit to disc repeat mode.
(Press more than 2 seconds again to return the unit to normal playback.)





Music Repeat

Music repeat allows you to listen to the same track as many times as you want.

Ramdom play

In the random play mode, the built-in microcomputer selects and plays tracks from the loaded CD (s) in random order.

- Since the order of track selection in random play depends on chance, the same track may be played two times in a row.
- Random play selects from all the tracks on all of the discs loaded in the magazine. If the main unit is used in conjunction with an older magazine-type car CD player (CDX-M100), tracks are randomly selected from the currently playing disc only.

Disc Repeat*

The disc repeat function causes the same disc to play repeatedly.

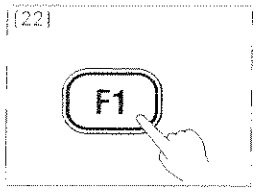
Using Highlight Scan Mode

Highlight scan allows you to scan the contents of a disc by playing back about 10 seconds of each track in sequential order.

1. The highlight scan mode is activated.

Press the button [22] to switch to highlight scan mode. All tracks on the disc are played for about 10 seconds each, starting from a point about one minute after the beginning.

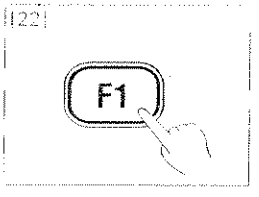
- By holding the button down for at least 2 seconds, you can change the point where playback begins in each track. (See next section.)



2. Turn off highlight scan when the desired track begins playing.

Press again to release the mode.
The selection being played when highlight scan mode is released will continue to play.

- Highlight scan turns off after scanning through all the tracks and returning to the one in which it was first activated.



- Although the starting point for playback comes factory set at 1 minute after the beginning of each track, you can change this to any starting point of your choice. (See next section.)
- If the total playing time of a track is less than the specified starting point (e.g., if the starting point is set at 1 minute for a track with a playing time of less than 1 minute), the starting point changes to about 10 seconds after the start of the track.
- If the specified starting time is less than 10 seconds before the end of the track (e.g., if the starting point is set at 1 minute for a track with a playing time of 1 minute 1 second), playback will be as long as the remaining time of the track.

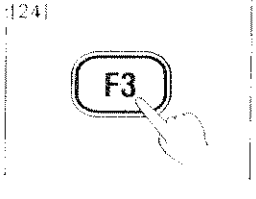
Note:

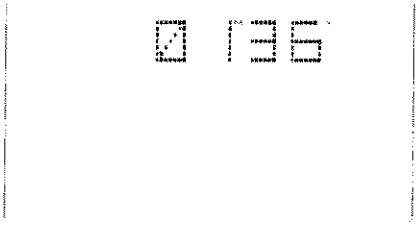
- *If the main unit is used in conjunction with older types of multi play CD players (the CDX M70 or CDX M100), the starting point for highlight scan is set at the start of each track, and cannot be changed.*

Changing the Starting Point for Highlight Scan

1. Specify fast forward/reverse mode.

Display elapsed playing time by specifying fast forward/reverse mode.
(Press again to release.)

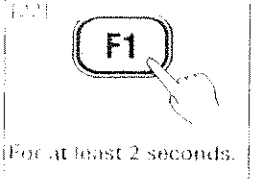




2. Set the starting point.

Carry out normal playback or fast forward/reverse operations, then hold down the button for at least 2 seconds at the point where you want highlight scan playback to begin (until the beep sounds).
After changing the starting point, the unit changes to highlight scan mode with the new starting point setting.

- Pressing the button for less than 2 seconds changes the unit to highlight scan mode. (See previous section.)



- The starting point is set in units of 10 seconds. Any fraction of 10 seconds is disregarded.
- Since the starting point is determined by the elapsed time after start of play, a starting point that exceeds a track's playing time cannot be set. To set a long starting point, perform the procedure using a track with a long playing time.

Using Program Play (Instant Track Programming (ITP))

Exclusive multi play CD player function

With program play, you can program the playback sequence of desired tracks from all the tracks contained on the compact discs loaded in the magazine.

Before Using Program Play:

- Program play will not function for old types of multi play CD players (CDX-M70 or CDX-M100).
- Up to 32 tracks (steps) can be programmed per magazine.
- Since programs are recorded for individual magazines, when a preprogrammed magazine is loaded, its program is retrieved from memory and play is performed according to the programmed sequence.
- Magazine identification is performed according to the compact disc in tray 1 of a magazine. Tray 1 should therefore always be loaded. Although a program can be created even when tray 1 is empty, the program is erased when the magazine is removed.
- Up to 16 magazines can be programmed. If you program more than 16, the oldest programs will be deleted in sequence and replaced with the new ones.

Programming Procedure

1. Play the track to be programmed.

Use the disc number search and track number search to select the desired selection.
(For details, see "Using Disc Number Search to Select a Disc" on page 43 and "Using Track Number Search" on page 44.)

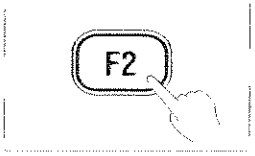
2. Record the first step (track).

Press the button [23] to record selection being played as selection 1 in the program.
The program sequence is indicated in the message display component.

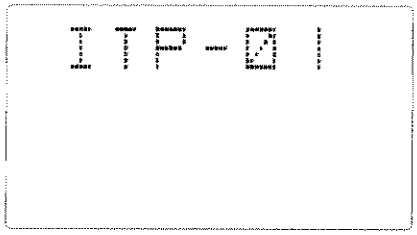
- Take care not to press this button by accident since it will cause the program to be recorded.
- Holding down the button for at least 2 seconds causes the program to play.

(For details, see "Playing Back a Program" on page 46.)

[23]



Programing indication shown for about 3 seconds.



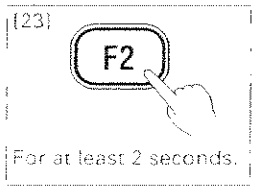
3. Record the remainder of the desired tracks.

Repeat steps 1 and 2.

- If the memory contains a number of tracks, the new selection is added to the next step.
- Programming is possible even when the multi-play CD player is in highlight scan, music repeat, or random play mode.
- Up to 32 steps can be recorded. If recording of a 33rd step is attempted, "FULL" appears on the display for about 3 seconds to indicate further recording is not possible.

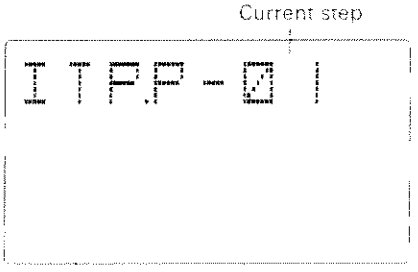
Playing Back a Program

Holding down the button [23] for at least 2 seconds begins playback of the program.
(Press again to release.)



While the program is being played, the sequence of the selections played is displayed in the message display component.

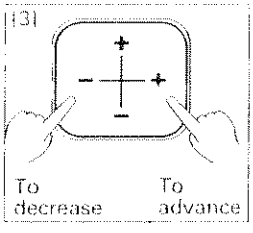
- Holding down the button for less than 2 seconds switches the unit to the programming mode.
  (For details, see "Programming Procedure" on page 47.)
- When program paly is activated, all tracks are played in the programmed sequence. When the last step finishes, the program returns to the first step and begins playing again.
- When you attempt to play the program in a magazine with no program recorded, "EMPTY" will be scrolled across the message display component to inform you that it is not possible to play a program.

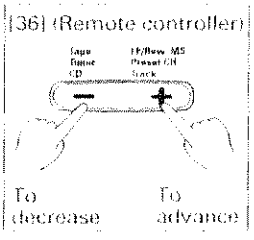


Searching for a Step Number (Step Number Serarch)

Recall the selection in the sequence stored in the program's memory.

Main unit operation:
Operate using the button [3] leftwards and rightwards.
Remote control operation:
Operate using the button [36].





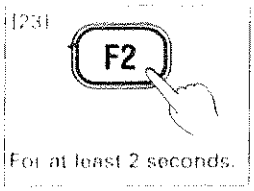
Note:

- *Step number search will not function by the main unit operation when the unit is in either equalizer or fader-balance mode. Make sure these modes are OFF before using this function.*
  (For details, see "Selecting Equalizer/Fader Balance Mode" on page 22.)

Erasing a Single Selection from a Program

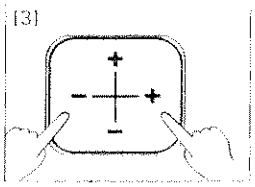
1. **Play the program.**

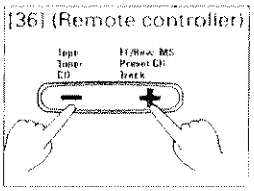
   Hold down the button [23] for at least 2 seconds.
   (For details, see "Playing Back a Program" on page 48.)



2. **Find the track to be erased and play it.**

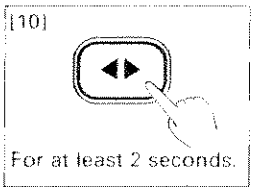
   Search for a step number using the step number search.
   (For details, see "Searching for a Step Number" on page 48.)





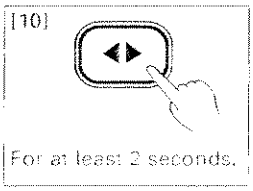
3. **Erase the track.**

   Hold down the button [10] for at least 2 seconds (until a beep sounds).
   - After the selection is erased, all following selections move up one place in the program sequence.



Erasing an Entire Program

During normal play, hold down the button [10] for at least 2 seconds (until a beep sounds).
The program recorded for the magazine currently playing is erased. "CLEAR" will scroll across the message display component.

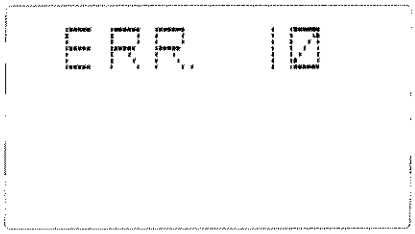


Note:

- *Erasing a program is not possible during the highlight scan, music repeat, or random play modes. Turn these modes OFF and begin normal CD play before erasing a program.*
  (For details, see "Using Highlight Scan Mode" on page 46 and "Using Disc Repeat, Music Repeat and Random Play" on page 45.)

Error Mode

Should an abnormality occur — for example, the built-in CD player or multi-play CD player cannot be operated, or the music stops during CD playback — the main unit will indicate an error mode.
While it the unit is in error mode, a number will be displayed indicating the cause of the error, so please check the items listed below. If you cannot fix the problem after checking the cause of the error, please contact your dealer or your nearest Pioneer service center.



Note:
- *When using the multi-play CD player, CDX-M100, CDX-M70, CDX-M50 and CDX-M40, an error will be displayed only in the form of "ERR.00", without the number which indicated the cause of the error. When this display appears, please check items 11, 12, 14, or 30 listed below.*

Display	Cause	Treatment
11,12	Dirt or a scratch on the disc stops the laser beam from being able to focus.	Wipe the dirt off the disc. Exchange the disc if it is scratched.
	The disc has been inserted upside down.	Confirm that the disc has been inserted right side up.
14	The disc has been inserted upside down.	Confirm that the disc has been inserted right side up.
	An unrecorded compact disc (CD-R), can be recorded on once is being used.	When you use a CD-R, load one that has been recorded on.
30	Dirt or a scratch on the disc hinders the track number search function.	Wipe the dirt off the disc. Exchange the disc if it is scratched.
80	An empty magazine is loaded in the multi-play CD player.	Insert a disc in the magazine.
10, 12, 50, 60, 70, A0	Electrical or mechanical system fault.	Turn the car ignition switch OFF, then ON again, or change to other sources except CD playback, and then to CD playback again. If the error indication does not disappear, contact your dealer or your nearest Pioneer service station.

- When error numbers not mentioned above are indicated, refer to the owner's manual accompanying the multi play CD player.

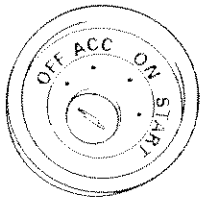
HEAT Indicator

To prevent deterioration in the semi-conductor laser from overheating, playback of a CD will stop when the temperature surrounding the main unit and the multi-play CD player rise during play.
When this occurs, "HEAT" will be indicated on the display. Please wait until the temperature drops.
- This function refers to the CD player component of the main unit and to the multi-play CD player CDX-M100. It does not refer to other multi play CD players.

Connecting the Units

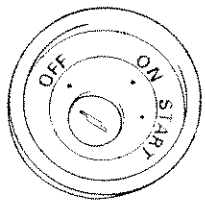
Before Connecting the Unit:

- *To avoid shorts in the electrical system, be sure to disconnect the battery (−) cable before beginning installation.*
- *Before making final connections, make temporary connections then operate the unit to check for any connecting cord problems.*
- *Refer to the owner's manual for details on connecting the various cords of the power amp and other units, then make connections correctly.*
- *When replacing fuses, be sure to use only fuses of the rating prescribed on the fuse holder.*
- *Be sure to connect the memory power supply lead (orange) to a terminal that is always supplied with power regardless of the vehicle's ignition switch position. If this connection is made incorrectly or is forgotten, the unit will not work at all.*
- *Don't pass the orange lead through a hole into the engine compartment to connect to the battery. This will damage the lead insulation and cause a very dangerous short.*
- *Since a unique BPTL circuit is employed, never wire so the speaker leads are directly grounded or the left and right speakers' (−) leads are common.*
- *Speakers connected to this unit must be high-power types possessing minimum rating of 30 W and impedance of 4 to 8 ohms. Connecting speakers with output and/or impedance values other than those noted here can damage the speakers.*
- *When the power amp is being linked with this system, be sure not to connect the blue lead to the amp's power terminal. Likewise, when linking this system with the auto-antenna, do not connect to power terminal for the antenna. Such connection can make overcurrent cause malfunctions.*
- *When the unit is mounted in a vehicle whose ignition switch does not have the ACC (accessory) position as shown in Fig. 2, be sure to connect the red lead of the unit to the terminal controlled by the ignition switch ON/OFF position. If you do not, the vehicle battery may go flat when you leave your vehicle for several hours.*



ACC position

Fig. 1



No ACC position

Fig. 2

Upon Completion of Wiring

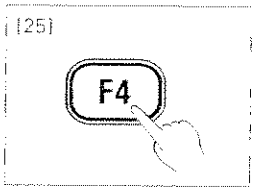
Press the Clear Button

After wiring has been completed, use a sharp point such as a pencil tip to press the clear button on the main unit and the multi-play CD player.
(For details, see "Press the Clear Button" on page 5.)

Starting the Self-Demonstration

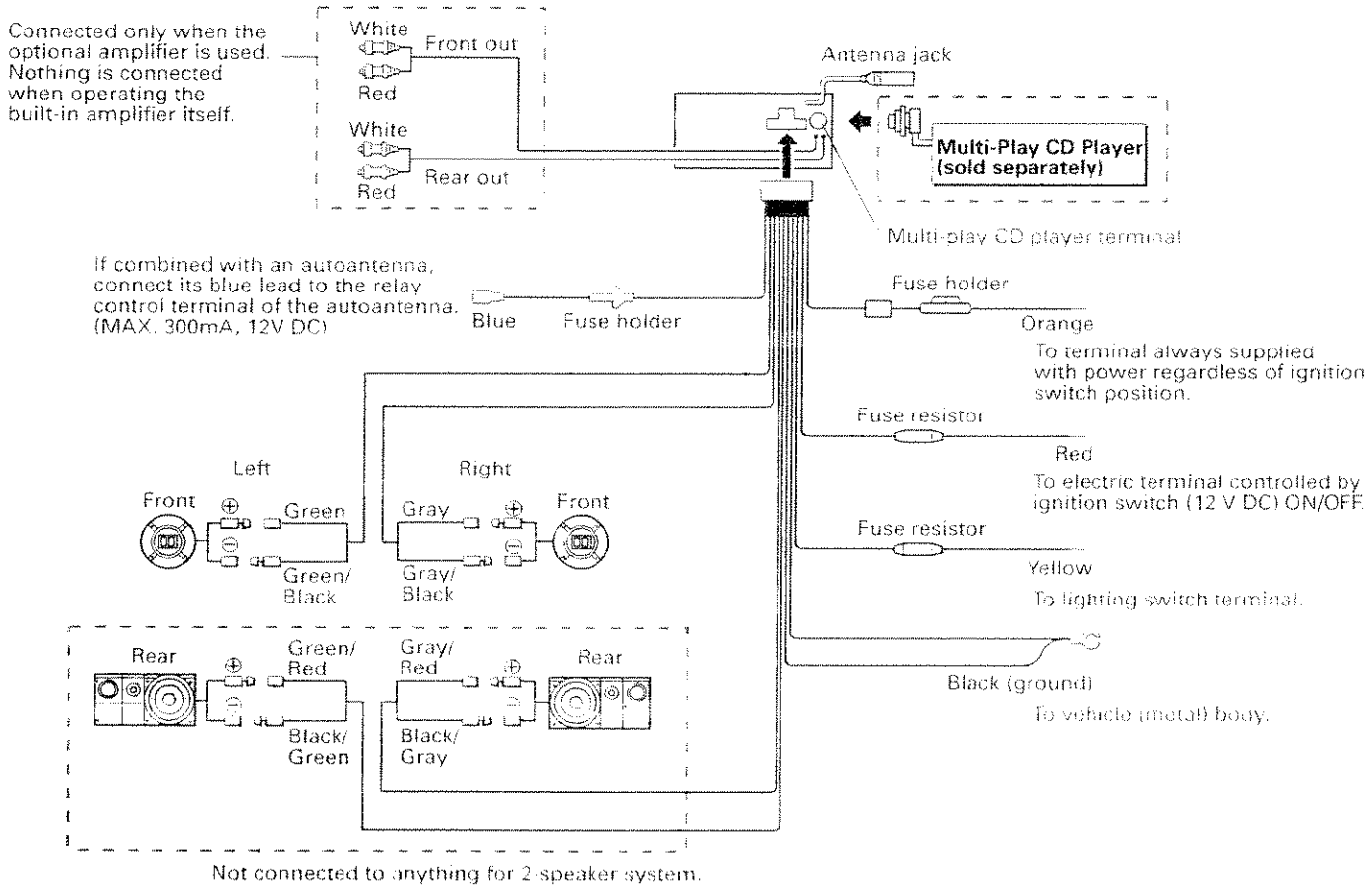
After wiring has been completed, the self-demonstration function of this unit will begin when the vehicle's ignition switch turns ON or ACC position.

Turning the unit OFF begins the self-demonstration function automatically. Pressing the button [25] turns it off.
(Press again to turn on.)
(For details, see "Using the Self-Demonstration Function" on page 16.)

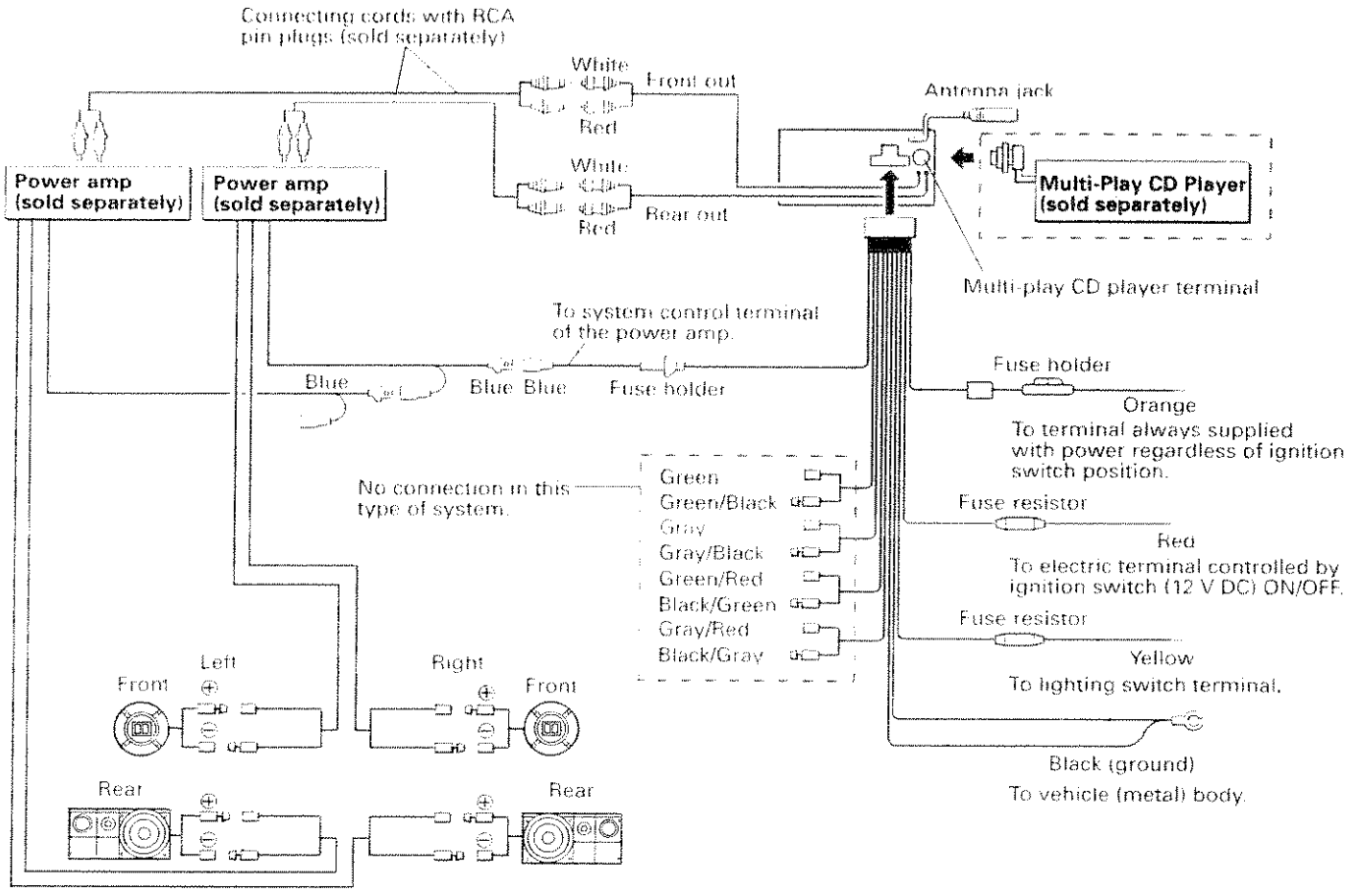


Connection Diagram

Example 1: 4-speaker system with built-in amplifier



Example 2: 4-speaker system with optional amplifier



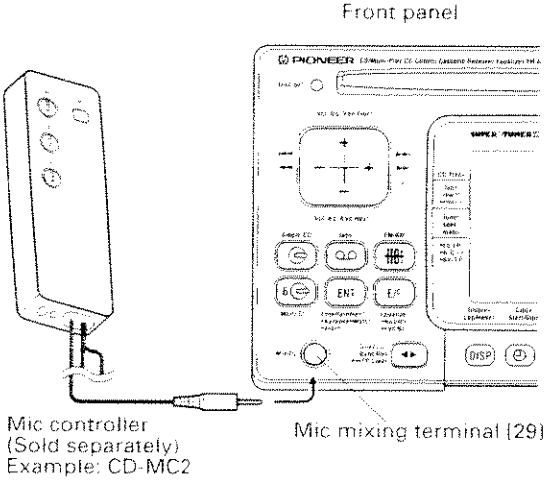
When Using the Unit as a Karaoke System

When combined with the separately available Mic controller (e.g., CD-MC2), this unit can be used as a karaoke system.

When combining a Mic controller to this unit, connect the mike mixing plug of the Mic controller to the mike mixing terminal of the unit's front panel.

Note:

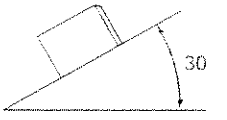
- *Although a commercially available mike is connected directly to the mike mixing terminal, the sound is not output through the mike (the mixing function will not work).*
  When using this unit as a karaoke system, be sure to combine the unit with the separately available Mic controller (e.g., CD-MC2).



Installation

Note:

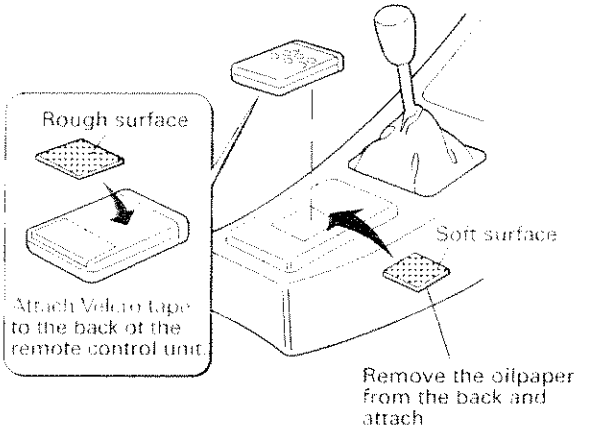
- *Use only the parts included with the unit to ensure proper installation. The use of unauthorized parts can cause malfunctions.*
- *Consult with your nearest dealer if installation requires the drilling of holes or other modifications of the vehicle.*
- *When installing or wiring the unit, do not hold the unit's open-and-close display. The display may open and be damaged.*
- *If installation angle exceeds 30° from horizontal, the unit might not give its optimum performance.*



Installing the Remote Controller Unit

Affix a strip of Velcro tape to the back of the remote control unit.
Remove the oil paper on the back and affix into place.

- Thoroughly wipe off the surface before affixing the Velcro tape.


Rough surface
Soft surface
Attach Velcro tape to the back of the remote control unit
Remove the oilpaper from the back and attach

Installation Using the Screw Holes on the Sides of the Unit

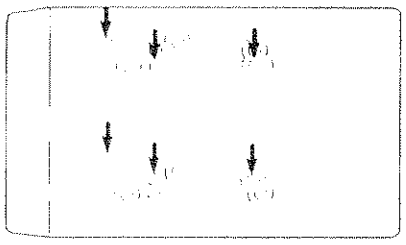
Note:

- *Depending on the vehicle model or year, installation as illustrated may not be possible. In this case, consult with your nearest dealer.*

Example 1: Installing the unit in a Toyota

1. Remove the radio and the pocket (If there is a pocket).

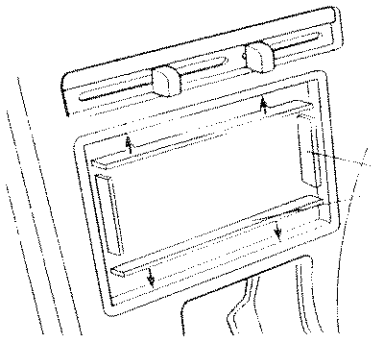
When you have removed these, you will find two brackets that mount the radio and the pocket. You can use these brackets to install the unit. Fit the bracket to the unit and check the position of the brackets to insure the unit will line up with the dash trim panel.



Screw holes for a Toyota

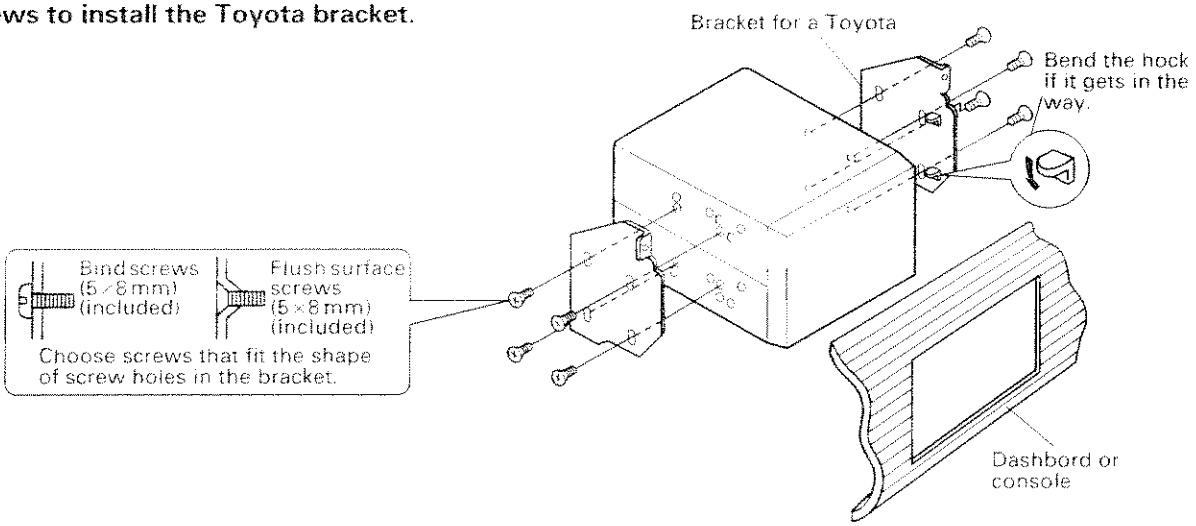
2. Attach the cushion (included) to the dashboard trim panel.

Attach the cushion to the dashboard trim panel as illustrated on the right. Attach so that the cushion will not prevent the display from opening and closing.



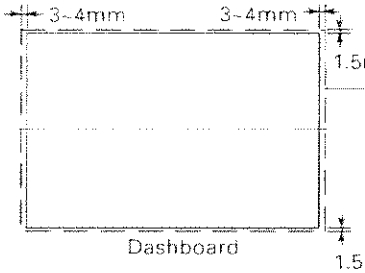
Cushion
Remove the oilpaper and attach the cushion to the dashboard.

3. Use the screws to install the Toyota bracket.


Bracket for a Toyota
Bend the hock if it gets in the way.
Bind screws (5×8mm) (included)
Flush surface screws (5×8mm) (included)
Choose screws that fit the shape of screw holes in the bracket.
Dashbord or console

Note:

- *Depending on the vehicle model and year you may be required to modify the dashboard trim panel, as illustrated. In this case contact your nearest Pioneer dealer.*



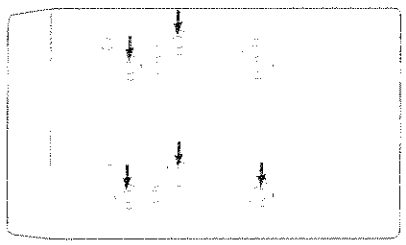
Example 2: Installing the unit in a Nissan

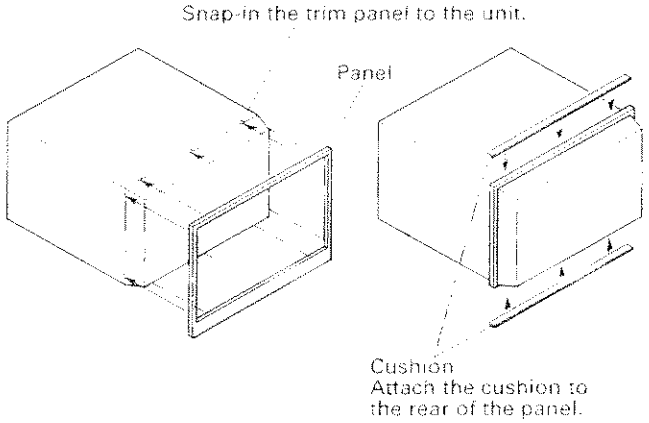
1. **Remove the radio and the pocket for (If there is pocket).**

   When you have removed these, you will find two brackets that mount the radio and the pocket. You can use these brackets to install the unit. Fit the bracket to the unit and check the position of the brackets to insure the unit will line up with the dash trim panel.

2. **Install the panel (included).**

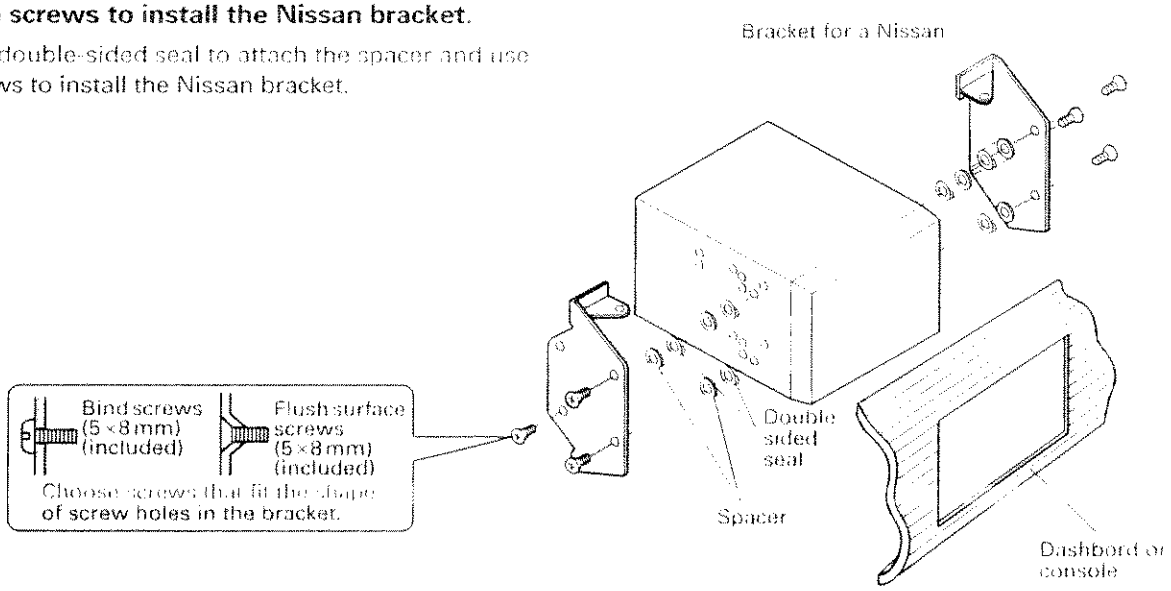
   Install the panel in front of the unit, attach the cushion as illustrated on the right, and secure the panel.





3. **Use the screws to install the Nissan bracket.**

   Use the double-sided seal to attach the spacer and use the screws to install the Nissan bracket.


Bracket for a Nissan
Bind screws (5×8 mm) (included)
Flush surface screws (5×8 mm) (included)
Choose screws that fit the shape of screw holes in the bracket.
Double sided seal
Spacer
Dashboard or console

Troubleshooting

You may mistake minor operational errors for breakdowns. Check the items below before you take the unit in to be repaired. If you are unable to rectify the problem after checking the points below, read the clause "In case of trouble" and ask for repair.

Note:

- *Never remove the top case of the unit to attempt check or repairs.*

Symptom	Cause	Treatment	See page:
Common items			
No sound, or sound is low.	Volume is low.	Raise the sound volume.	12
	When the 2 speaker system, the fader is set at "front".	Set the fader to center.	28
	Attenuator is ON.	Cancel the attenuator.	12
An indication on the display will not go off even after the unit is switched OFF.	Demonstration is ON.	Turn demonstration OFF.	16
Power doesn't come on. Operations don't take place even though operation buttons are pressed. An indication in the display is not correctly displayed.	The built-in micro computer is not working properly due to excessive noise.	Press the clear button using the tip of a pencil, etc.	5
Remote controller			
Remote controller doesn't work.	The batteries are going flat.	Replace the batteries with new ones.	4
	The direction of ⊕ and ⊖ of the batteries are placed incorrectly.	Insert the batteries correctly.	
	You are operation the remote controller facing your feet or the seat.	Point the remote controller at its sensor when operating.	5
	The receiving sensor of the remote controller is exposed to direct sunlight.	Shield the sensor from direct sunlight.	
Tuner			
Excessive noise.	Tuner is not adjusted to the frequency of the station.	Adjust to the correct frequency.	30
Unable to select using seek tuning.	There are no stations with a strong reception.	Operate manually, using manual tuning.	
	Unit is in local mode.	Cancel local mode.	
Tape			
Power goes off quickly even when the cassette tape is laoded.	The tape is cut or tangled.	Change the tape.	35
Play does not begin, even though the cassette tape is loaded, but ON/OFF is repeated.	Tape is tangled.		
The tape switches sides during playback.	Tape is roughly wound.	Fast forward, etc. to rewind the tape to make it even.	37
Sound quality is poor.	Dolby NR is not working properly.	Adjust ON/OFF of Dolby NR to the state of ON/OFF when it was recorded.	38
	Tape head is stained.	Clean the tape head.	39

Symptom	Cause	Treatment	See page:
Music search doesn't work properly.	The blank between selections is less than 4 seconds.	Use a tape in which the blank between selections is for at least than 4 seconds.	37
Built-in CD/Multi-play CD			
Disc ejects soon after it is loaded.	Disc is inserted reversed.	Load the disc with the signal surface of the disc faced down.	41
	Disc is stained or water drops are on the disc.	Wipe the stain or drops from the disc.	40
Load noises emitted or playback stops.	Disc has a major scrach or warp.	Change the disc. If the problem is fixed, it means that the disc is faulty.	—
	Disc is extremely dirty.	Wipe stains from the disc.	40
An error message is indicated on the display.	Abnormalities have occurred in the built-in CD player or in the multi-play CD player.	Refer to Page 50 "Error Mode" and check the contents.	50
Connect			
The unit doesn't switch on. The unit doesn't work when you press the operation buttons.	The vehicle's battery is not connected. You have not pressed the clear button.	When you have finished wiring, connect the battery and press the clear button with the tip of a pencil.	51
The unit doesn't work (no sound).	Wiring of orange lead wires (for always supplied with power) is incomplete.	Connect all orange lead wires to the terminal always supplied with power regardless of the ignition switch position after you have passed them through the vehicle's fuse unit.	52
	Wiring of red lead wires (for accessory power) is incomplete.	Connect all red lead wires to the accessory terminals after you have passed them through the vehicle's fuse unit.	
	Blown fuse.	Find out why the fuse was blown and replace it with a new one with the same capacity.	51
	Incomplete connector connection.	Make sure to connect connectors properly.	
The unit doesn't work (no sound). Clatter is audible.	Incomplete earth connection.	Make sure to connect all black lead wires (ground) to the vehicle (metal) body.	
Front and rear sound is reversed.	Terminal connections for the front and rear speakers are switched.	Connect properly.	52
No sound is heard from either the front or rear speakers.	Speaker cords are unplugged.	Make sure to connect the speaker cord properly.	
Unit illumination doesn't switch on when the vehicle lighting switch is turned on.	Wiring of yellow load wire (illumination) is incomplete.	Connect all the yellow lead wires to the plus circuit of the vehicle lighting switch.	

In case of trouble

When the unit does not operate properly, contact your dealer or nearest authorized PIONEER Service Station.

- The multi-play CD playback function requires connection to the separately available multi play CD player (e.g., CDX M30).

Specifications

General

Power source ..... 14.4 V DC (10.8 — 15.6 V allowable)
Grounding system ..... Negative type
Max. current consumption ..... 7.0 A
Dimensions (chassis) ..... 178(W) × 100(H) × 155(D) mm
(nose) ..... 176(W) × 96(H) × 12(D) mm
Weight ..... 2.7 kg

Amplifier

Continuous power output is 15 W per channel min. into 4Ω, both channels driven 50 to 15,000 Hz with no more than 5% THD.
Max. power output ..... 30 W × 4 (EIAJ)
Continuous power output ..... 14 W × 4 (1% dist. at 1 kHz)
Load impedance ..... 4Ω (4 — 8Ω allowable)
Nominal output level/
output impedance (pre out) ..... 500 mV/1 kΩ
Equalization frequency ..... 60 Hz, 125 Hz, 250 Hz, 500 Hz, 1 kHz, 3.5 kHz, 10 kHz
Equalization range ..... ±12 dB
Loudness contour ..... +10 dB (100 Hz), +6.5 dB (10 kHz) (volume: -30 dB)

CD player

System ..... Compact disc audio system
Usable discs ..... Compact disc
Signal format ..... Sampling frequency: 44.1 kHz
Number of quantization bits: 16, linear
Frequency characteristics ..... 5 — 20,000 Hz (±1 dB)
Signal-to-noise ratio ..... 94 dB (1 kHz) (IEC-A network)
Dynamic range ..... 90 dB (1 kHz)
Number of channels ..... 2 (stereo)

Tape player

Tape ..... Compact cassette tape (C-30 — C-90)
Tape speed ..... 4.8 cm/sec.
Fast forward/rewind time ..... Approx. 100 sec. for C-60
Wow & flutter ..... 0.09% (WRMS)
Frequency response ..... Metal: 30 — 22,000 Hz (±3 dB)
Stereo separation ..... 50 dB
Signal-to-noise ratio
..... Metal: Dolby C NR IN: 73 dB (IEC-A network)
Dolby B NR IN: 67 dB (IEC-A network)
Dolby NR OUT: 61 dB (IEC-A network)

FM tuner

Frequency range ..... 87.5 — 108 MHz
Usable sensitivity ..... 8 dBf (0.7μV/75Ω, mono, S/N: 30 dB)
50 dB quieting sensitivity ..... 13 dBf (1.2 μV/75Ω, mono)
Signal-to-noise ratio ..... 70 dB (IEC-A network)
Distortion ..... 0.3% (at 65 dBf, 1 kHz, stereo)
Frequency response ..... 30 — 15,000 Hz (±3 dB)
Stereo separation ..... 40 dB (at 65 dBf, 1 kHz)

AM tuner

Frequency range ..... 531 — 1,602 kHz (9 kHz)
530 — 1,710 kHz (10 kHz)
Usable sensitivity ..... 18μV (25 dB) (S/N: 20 dB)
Selectivity ..... 50 dB (±9 kHz)
50 dB (±10 kHz)

Note:
Specifications and the design are subject to possible modification without notice due to improvements.

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